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54705

PATHOLOGICAL OBSERVATIONS,

PART I.

ON

DROPSY, PURPURA,

AND THE

INFLUENZA

OF THE LATTER END OF THE YEAR 1822, AND BEGINNING OF THAT OF 1823;

AND PARTICULARLY ON

THE MORBID CHANGES OF THE BLOOD, AND THEIR INFLUENCE ON THE PRODUCTION AND COURSE OF THESE DISEASES, ILLUSTRALED BY SELECT CASES AND DISSECTIONS.

BY WILLIAM STOKER, M.D. EDIN.

LICENTIATE OF THE KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND, SENIOR PHYSICIAN TO THE FEVER HOSPITAL AND HOUSE OF RECOVERY IN CORK-STREET,
&c. &c. &c.

Officium Medici circa hominem Ægrum est sanare.
INST. PATHOLOG. MED. AUCT. GAUBIO.

Medicina non ingenii humani partus, sed temporis filia.
BAGLIVI.

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PREFACE.

PATHOLOGISTS have, for a long time, considered diseases to consist, either of morbid actions that do not produce any change in the structure of parts, and therefore do not admit of anatomical inquiry after death; or of alterations in the structure which do take place, and become the proper objects of anatomical examination; and it has been held as exquisite skill in the anatomist, and proof of his useful exertions, to demonstrate how large a proportion the latter class of diseases bears to the former.*

Impressed, however, with an opinion that many diseases, especially those included in the preceding title page, depend on changes which

* The Morbid Anatomy, &c. &c. &c. By Matthew Baillie, M. D. F. R. S. L. and E. &c. &c. &c. London, 1812.

take place primarily in the fluids, as others do in the solids, I have been led to prepare the following work, the object of which is to exhibit some of those facts collected during an extensive experience for twenty-five years,* on which that opinion is founded; and I indulge a hope, that by directing a more minute and general attention to the state of the blood, and of the fluids derived from it, both in health and in disease, than has been of late bestowed on it by medical observers, I shall promote the science of medicine, and further the improvement of the arts of healing.

Contemplating the warm opposition which I may anticipate to any attempt at altering a bias of the mind so long and so firmly established as that bias has been, to the total rejection of the Humoral Pathology, I would gladly have left the task to hands more adequate than mine.

* Besides the experience which I had as Physician to the most extensive dispensaries in Dublin before the Fever Hospital and House of Recovery in Cork-street were erected, I have been Physician to that institution since its foundation; nd during my attendance there, 64,170 persons have applied for admission, and were examined at their own homes; and 47,814 patients were admitted; 44,709 were dismissed cured; 120 remain in the hospital 25th of June; 2985 died; so that deaths to recoveries have been as one to sixteen, nearly.

A fair statement of facts, however, will be received favourably by the medical reader, and haply the design of the work may present a shield against severe criticism upon either its defects or its execution.

The opinions which I have ventured to express, though differing in some essential particulars from those deduced from dissection, will, I trust, appear to be well founded, as they were formed from very extensive observations made in the course of diseases; and whilst I submit them freely for dispassionate consideration, I cannot help suggesting, while I duly appreciate the many great advantages which anatomy has achieved for medicine, that the high estimation which its useful and splendid discoveries in the primitive structure and subsequent derangement of the human body have acquired for it, has contributed, in no small degree, to divert attention from the condition of the fluids, which condition but rarely presents any appearance after death to merit the notice of the anatomical enquirer.

If the commencement of diseases be found common to the fluids as well as to the solids, it must be important to ascertain which of these

is primarily affected, in order to form correct views of the course of diseased actions, to decide the most effectual means for prevention or cure, or to form a just opinion of the ravages found impressed on the various organs after death.

In the familiar instance of inoculation, the commencement of the induced train of morbid symptoms appears evidently to be confined to the fluids; for it is well known that the character of the wound through which matter is inserted can have very little if any influence, on the succeeding symptoms; but, on the contrary, that knowing the nature of the virus employed, the operator confidently pronounces the series of morbid actions and the nature of them which ensue.

The explanation which has been generally given of the appearances of the blood drawn in various diseases, had for a long time, appeared to me unsatisfactory, because such appearances were not always found accompanied by the circumstances which were stated to explain them. Thus what has been called the buffy coat on blood has been attributed to slow coagulation, allowing the red particles by their specific gravity to subside;

but I have frequently observed, that where this buffed surface of blood drawn from persons in disease was most dense and deep, coagulation was most rapid, and vice versa, and as the analyses of the blood, which have been lately reported, tend to show that very little, if any thing metallic, is contained by the red particles, on which their greater specific gravity was supposed to depend, so they must tend to invalidate the generally received hypothesis respecting the buffy surfaces of the blood drawn in various states of disease.

Experiments that I instituted with a view to this question, which will be briefly stated in a tabular form, afforded results totally incompatible with such an explanation, and show not only that these buff surfaces which appear on the blood, drawn in certain diseases, do not depend on slow coagulation, but give new proofs in corroboration of the opinions which I had long entertained of a diseased state of the blood arising out of deranged or imperfect sanguification, which take place in the circulating mass whilst yet contained in the sanguiferous system, and thus influence (during life) the rise and course of the symptoms of disease.

Experiments also, which I made many years ago on the blood, with a view to the uses of the liver, have shewed that very remarkable changes during life are effected, especially on the colour and properties of the blood, which passes by the great avenue of the vena portarum, changes highly important in the process of healthy sanguification; these experiments will be found to have aided in the pathological enquiries detailed in this work, particularly with regard to the different kind and colour of the buffy surfaces on the blood drawn in the diseases of different organs, one kind and colour marking the pulmonary, and another the hepatic disease, owing, as I suppose, either to imperfection or insufficiency in the process of sanguification carried on in these organs, or to their healthy function being changed to a morbid secretion.

The many and great difficulties which attend an undertaking like the present, involving the *ratio symptomatum* as connected with morbid appearances, which have been for a long time too much disregarded by Pathologists, make me feel very sensibly how much the execution of it stands in need of the kind indulgence of the public, to

whom I offer myself merely as an humble pioneer, venturing, though with caution, dictated by some experience, to break through some of the entanglements which obscure and obstruct a way to valuable and medical information; and should I be so fortunate as to trace out for others this some time neglected path, or discover inducements to explore the field of enquiry through which it leads, the main object of my wishes and my labours will be obtained.

Although I should farther anticipate statements, to which I meant only to refer, I am induced to present from my note-book brief abstracts of two, out of the many cases, which led me to undertake the following work, and to adopt the first principles on which it is founded, encouraged and aided however at every step by the facts and observations previously published in their valuable works on Dropsy, by Dr. Blackall,* Dr. Wells and Dr. Crampton,† and on

* See Observations on the Nature and Cure of Dropsies, &c. &c. by John Blackall, M. D. &c. &c. &c. London edit.

† Clinical Report on Dropsies, by John Crampton, M. D. &c. &c. &c. Transactions of the King and Queen's College of Physicians in Ireland, Vol. II. page 141, Dublin Edit, 1818.

Purpura, in those by Dr. Willan,* Dr. Bateman,† Dr. Parry‡ and Dr. Harty,‖ encouragement and aid which I most willingly acknowledge.

CASE I.

A. D. 1820, *November.*

A young lady, æt. 11 years, had, in the previous month of April, been bled for hepatic and pulmonary disease, threatening general dropsy, which succeeded a severe attack of scarlatina, the blood at that time being deeply and densely covered with buffy coat. This remedy, aided by mercurials, had been effectual on that occasion. Shortly after she was removed to her father's country residence, about forty miles from Dublin, and soon apparently recovered her usual health, and returned to Dublin without any complaint, much fuller and fatter than she had previously been. On the 19th of November, however, in the afternoon, though previously in

* See his Treatise on Cutaneous Diseases.

† See his Practical Synopsis.

‡ See Edin. Med. and Surg. Jour. Vol. 5th, January, 1809.

‖ See Med. and Surg. Journal, April, 1813.

good health and spirits, excepting a slight tendency to headache, which she disregarded, she became apoplectic.

First visit.—At seven o'clock in the evening, I found her apparently moribund; the powers of speech, of swallowing, or any kind of voluntary motion was totally suspended. Complete paralysis of the right side had taken place, and convulsions constantly agitated and distorted the other side. The left side of the face was much distorted, the mouth drawn to that side, and the palpebræ of the eye, and the eye itself, agitated with spasm; the muscles of the other eye, which lay open, and the pupil of which was dilated, seemed perfectly paralysed; pulse scarcely perceptible; had frequent and long intermissions; the skin clammy, and unequally warm; respiration quick and laborious.

Surgeons Macklin and O'Reilly tried to draw blood by openings, made successively in the median vein of each arm, the jugular veins, and temporal artery, but ineffectually, as none flowed from these openings, though assisted by friction and fomentation. Leeches to the temples were then applied; the head was shaved and blistered; stimulant frictions, warm baths, and ene-

mata, were then employed, but all with little apparent advantage, and I left my patient at midnight, though with an injunction to her attendants to persevere in the means in use, and as a *dernier resort* directed a blister to the right hypochondrium, yet with little ground for hope that she could survive the night.

Second visit.—*November* 20.—Eight o'clock, A. M. I learned that at two o'clock, the pulse having previously become strong and quick, blood began to flow freely from the temporal artery that had been opened in the evening, and soon afterwards the spasms ceased, the powers of speech and of motion were restored, the enemata were returned, bringing fæces along with them; and when about twelve ounces of blood had been discharged from the temple, the opening was secured by bandage, the patient drank freely of whey and fell asleep, continuing to sleep tranquilly to the time of my visit.

On wakening her none of the symptoms (such as were detailed in the last visit) remained; but there was a high degree of pyrexia, which continued, notwithstanding venesection, and the use

of aperients and sudorifics, for several days; and on the fourth day from that of the apoplectic attack, the eruption of measles appeared very generally over her face, body, and extremities, accompanied with the usual pulmonary affection; also with jaundice, and symptoms of derangement in the liver.

The measles, to the contagion of which she had been exposed (her brothers and sisters being still but convalescent from them), were attended through their course by severe pulmonary and icteric fever, but on the 7th of December following, she was convalescent, and on the 18th was so far recovered as to be able to undertake a journey to her native air, forty miles distant, and her recovery went on favorably for some time after her return home.

In the succeeding spring, however, I was sorry to learn from her medical attendant in the country, that symptoms of diseased liver had developed themselves, which, notwithstanding active means that he employed brought on ascites, and concluded fatally early in the ensuing summer.

CASE II.

September 1821.—A gentleman, 52 years of age, labouring for 20 years under constitutional tendency to obesity, that commenced with suppression of a gleety discharge from the urethra, to which he had been previously subject, and in whom this tendency was farther increased by full living and sedentary habits, consulted me in September 1821, on account of lethargic complaints, which had been constantly growing more urgent for some months before, notwithstanding the employment of purgatives, blisters, and an issue in the neck, which had been directed by the medical attendant at this gentleman's country residence, some distance from town.

On my first visit I found that the obesity was excessive, attended with symptoms of a very alarming nature; the surface of his head, body, and extremities, was every where leucophlegmatic, and the lower extremities from the hips, œdematous, pitting considerably on pressure, especially in the evenings. He had become so lethargic for some months before, as to be incapacitated for the due transaction of his affairs, and this state was attended with slight head ache,

vertigo, and palpitations of the heart, and occasionally with a loss of consciousness; belly generally costive; pulse 80, full and strong, but intermitting; he had become so drowsy, that whilst conversing with me on his malady, he could scarcely keep himself awake, but his appetite continued keen, as it always had been, and he had no paralysis of any part.

Bleeding from the arm to forty ounces, and leeches to the temples being found serviceable to him, were both repeated, six times in the course of the ensuing six weeks, and aided by an abstemious diet, purgatives, antimonials and acid drinks, every symptom of distress was removed that affected either mind or body; his bulk was considerably diminished, and his mental and corporeal activity proportionately restored, so that he returned to his country residence, near twenty miles from town, free from complaint.

In the festivities of the ensuing Christmas, however, as I afterwards learned, he had been induced to return to his former habits of full living, and though admonished by some return of his former indisposition, did not attend to it, until fits partly epileptic and partly apoplectic, leaving him in the intervals paralytic of the left side,

came on; and when I was called on to go down to see him in the commencement of the year 1822, I found him in a paroxysm, which, though for a while relieved by bleeding from the temporal artery, relapsed on the succeeding day, and terminated fatally.

In concluding this Preface I have only to add, that I have been induced to attempt a succinct account of the late influenza, as it appeared to me to have been the most formidable and fatal epidemic that I had ever witnessed, and also the most instructive, whether as regards its nature connected with the state of the weather, or as regards means of prevention and remedy suggested by the forms it assumed in its various stages or combinations, hoping that the attempt, however imperfect, may afford assistance to others as a record of facts, and as a guide in the future treatment of a similar epidemic, should it unfortunately again arise.

W. S.

21, *York-street*,
June 28, 1823.

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PART I.

PATHOLOGICAL OBSERVATIONS,

&c. &c.

On complicated cases of Dropsy and Purpura.

EVERY experienced physician must know that the ingenuity and zeal with which many able writers have concealed their failure in attempts to discover the proximate causes of diseases, and to generalise on too limited a number of facts, have been felt and deplored as an extensive source of error: but unfortunately that experience does not appear to have moderated the love of systems, the followers of which, on the contrary, either for a long time obstinately assert that the facts adduced in contradiction of their theories are but anomalies from the general

law, or when that position was no longer tenable, adopt the arguments, exclusively, which induced a conviction of their previous mistakes, and (nil desperandum) persuade themselves that a new system, totally opposed to that which had so perniciously misled them, would at once advance the cause of science and humanity. "The hu-"man mind (says Luther) is like a drunken pea-"sant on horseback; when we put it up on one "side it falls down on the other."*

Were nothing farther indeed involved than the talents, learning, or even integrity of those engaged in forming the opposed systems of the pathology of the fluids and solids, both might justly claim a large share of our admiration; but unhappily, however pure the intentions of the opponents, however great the ability with which they have conducted the dispute, it is, I think, to be apprehended that the strife has been most destructive of human life, as much so perhaps as any other of those which were contemporaneous with it.

An ingenious and able medical writer† tracing (in a modern work) the revolutions of medical science, introduces the once generally adopted humoral pathology in terms, which, in some

* Germany, by Baroness Staël Holstein, vol. 3. page 14.

† Sketch of the Revolutions of Medical Science, by P. J. G. Cabanis, &c. &c. translated by A. Henderson, M.D. London, 1806, page 152.

degree, mark the extent of the evils that sprung from its abuse, and the consequent discredit into which it has latterly fallen. "The new light "(he adds) which was thrown upon the animal "economy by this important discovery," (the circulation of the blood) "served only to redou- "ble the rage of systems. Nothing else was "thought of but to cause the blood to circulate "more freely, to destroy its viscosity, to draw off "from the body that which was supposed to be "corrupted, to purify it, correct it and renew "it, and to preserve the blood-vessels in a re- "laxed and pervious state. Hence those torrents "of aqueous and diluent drinks, with which "Bontekoe and his adherents inundated their "patients. Hence that sanguinary fury, which "the partisans of Botalli thought themselves "entitled to exercise in their treatment of all "sorts of diseases;—a fury which, though so "often damped, in some measure, by systematic "murders, has ceased only for intervals, and still "from time to time reappears in the schools. "Hence too, that wretched mania of the trans- "fusion of blood, of which the practice almost al- "ways deprived those who had the temerity to "subject themselves to so dangerous an operation, "of their life, or their reason."

This extract is intended to shew how one of the most beautiful discoveries of modern medicine was misapplied, and that far from elucidating

the practice of the art, as there was every reason to expect, only had the effect of misleading those who were dazzled by its splendor; and it may still be doubted, whether the right application of it has yet been made to the knowledge and cure of internal diseases.

Without presuming to deny the great extent of the mischief which must have followed that blind zeal, with which mistaken views of the humoral pathology were so warmly adopted in theory and in practice, it has often appeared to me, for reasons which will be stated in the ensuing work, that the total rejection of that system, as inculcated by Boerhaave and his commentator, and the exclusive adoption of that raised on its ruins by Hoffman, Baglivi, Cullen and the *solidists* of the Edinburgh school, (who assert that the changes in the state of the fluids are merely secondary to those of the solids,) have been prolific sources of error.

If I judge rightly, the candid enquirer of the ratio symptomatum during life, and of the appearances found in death, will frequently be forced to admit the justness of many of those observations on which the once admired, but lately exploded theory, was chiefly founded: observations which go to prove that the rise and course of diseases are by no means limited by those lines of demarkation which have so minutely divided the rival systems. Breaking through the shackles

of dogmatism, he will find that nature should be watched with that caution which the inimitable founder of the school of Cos had prescribed, and by the aid of which Sydenham so effectually improved and practised the healing art.

The unmerited degree of discredit in which the humoral Pathology was long held, is farther to be deplored, perhaps, as the origin of that neglect of the analysis of the blood and of the fluids derived from it, in health and in disease, which has contributed so much to retard the knowledge of the physiology of the fluids, a branch so essential in the study of medicine. The late experiments of Mr. Brand and some others bid fair, indeed, to restore such enquiries to that rank which their importance merits, and with the great improvements already obtained in the means of chemical investigation we may, I hope, look for the discovery of that latent process or latent mechanism* subordinate to

* By these terms I wish to express that latent process and latent schematism, as described by Professor Playfair, as follows:—"The former is the secret and invisible progress by which sensible changes are brought about, and seems, in Bacon's acceptation, to involve the principle since called the law of *continuity*, according to which no change, however small, can be effected but in time. To know the relation between the time and the change effected in it, would be to have a perfect knowledge of the latent process. When motion is communicated from any body to another, it is distributed through all the parts of that other by a law quite beyond the reach of sense to perceive directly, but yet subject

the formation of the various animal fluids, so sedulously desired and sought after formerly by physicians, and deemed by them so essential to the true knowledge of Pathology.

As the practical observations intended to be made on certain exemplifications of disease, which will appear in a subsequent part of this work, will be illustrated by a reference to the Physiology of the fluids, I shall here briefly notice the sources of the blood, preliminary to the history of the cases.

The two great sources whence the blood acquires the means of its fluidity and of restoring the losses sustained in circulation, are, first the union of the chyle and lymph in the thoracic duct flowing into the subclavian vein, and from thence mingled, for the first time, with the blood in the right side of the heart, and next the contents of the hepatic veins, which carry back to the auricle of the heart, through the medium of vena cava ascendens, blood which had already

to investigation, &c. The latent schematism is that invisible structure of bodies on which so many of their properties depend. When we enquire into the constitution of crystals, or into the internal structure of plants, &c. we are examining into the latent schematism."—See Dissertation second, exhibiting a general view of the proporties of mathematical and physical science, by John Playfair, Professor of Natural Philosophy in the university of Edinburgh.—Page 41, vol. 2, supplement to the fourth and fifth editions of the Encyclopœdia Britannica.

passed once, at least, through both the lesser and greater circulation.

The condition and properties of the fluids at these two sources of supply, immediately before being submitted to the action of the lungs, will demand particular attention in the subsequent deductions.

"The chyle," says Richerand,* "which is necessarily affected by the various kinds of food "which we use, has different appearances in the "same persons, varying according to the quality "of the different substances on which we feed; "indigo gives it a blue colour, it is reddened by "madder and beet root, and is changed green by "the colouring matter of several vegetables. In "a great number of experiments performed on "living animals it has always appeared to me, "such as it is described by authors, white, with "a slight degree of viscidity, and very like milk "containing a small quantity of flour. It is easy "to collect a certain quantity of chyle by tying "the thoracic duct of a large dog or a sheep, or "even a horse, as was done several times at the "veterinary school at Alfert. This fluid, when "exposed to the air, on cooling, separates into "two parts, the one forming a kind of gelatinous "coagulum very thin, and not unlike the buffy "coat of inflammatory blood; the other in greater

* See Elements of Physiology by A. Richerand,—p. 158.

" quantity, and liquid, rising above the coagu-
" lum on its being detached from the sides of the
" cup to which it adheres. The coagulated mass
" is semitransparent, of a light pink colour, does
" not resemble the curd of milk, so that all that
" has been said by a few modern physiologists on
" the exact resemblance which they have pre-
" tended to discover between milk and chyle, is
" totally void of foundation. The lymph, which
" constantly unites with the chyle before the lat-
" ters enters the sangufueros system, on being re-
" ceived into a vessel by Mascagni, coagulated in
" the space of seven or ten minutes, turned sour,
" and separated into two parts, the one more
" abundant, serous, in the midst of which there
" floated a fibrous coagulum, which, by contract-
" ing, formed into a small cake on the surface
" of the fluid. Hence, he concludes, contrary
" to the opinion of Hewson, that lymph con-
" sists, for the greatest part, of serum, and that
" fibrine constitutes its least part."

The condition of the blood flowing from the liver, and again reentering the greater circulation by the vena cava ascendens, as well as the changes produced on it in its passage through the biliary system, appears to me also to demand attention in treating of diseases, but more especially such as are intended for the subjects of this essay.

It has always been my opinion that the chief use of the liver and spleen was to effect an im-

portant preparation in the highly rich and dense venous blood which passes through these organs, and essentially necessary to fit it for the elaboration of arterial blood in the lungs, and for the vital purposes of the greater circulation.

The complex but admirably contrived apparatus in the liver, and the course of the venous blood through it and other parenchymatuos viscera of the abdomen, extended and retarded as it is with such obvious design, would seem well calculated, not only to provide for its necessary fluidity by a more intimate union of the hydrocarbonous principles with which it is so fully charged, but also to impart renewed animalisation, farther fitting it to supply the waste of the solid parts of the body, and of vital power, which is incessantly going on during life.

Experiments which I instituted more than twenty years ago, with a view to ascertain what was the difference between the state of the blood in the vena portæ, and of that as it enters the vena cava ascendens from the liver, though rude and incomplete, yet appeared to me to be at least decisive that in health, blood is of lighter colour after than before its passage through the liver; and further, that on immersing blood of these different denominations in separate vessels of water at a high temperature, there was a remarkable portion of solid animal matter elevated to the surface of the water in which the blood of the vena cava was

immersed, whilst no such appearance presented itself on the water in the other vessel.*

The diseases to which the foregoing observations on hurmoral pathology are intended here more particularly to apply, are those of dropsy purpura, and certain other diseases in which the symptoms being most palpable to the senses, their seat may be the more accurately determined; but previously to my entering on a detail of cases, I should premise my intention to place different forms of purpura, dropsy, and other diseases of vascular effusion under distinct heads, such forms appearing to me not only to arise in very opposite states of vital power, but also in distinct conditions of the fluids or of the solids, which may, however, ulteriorly extend to both.

Those under the first head, for the sake of distinction, will be denominated Dynamic, and those of the second Adynamic. The following cases were complications of dropsy and purpura in the same same persons, and of the dynamic kind.

* See Transactions of the Association of the King's and Queen's College of Physicians in Ireland. Vol. 1, page 163 and 4.

DYNAMIC CASES OF DROPSY AND PURPURA COMPLICATED.

CASE I.

March, 1821.

Mrs. ———, 39 years of age, fair and well formed, mother of nine healthy children, all of whom she had suckled nearly twelve months each,* was always accustomed to regular moderate exercise. Had in general enjoyed good health, except occasional attacks of inflammatory sore throat, to which she had been long disposed, attacks which were relieved by antiphlogistic regimen, the application of leeches to the affected part, and saline aperients, until December, 1813, when soon after the birth of her sixth child, she was seized with sore throat, severe oppression, and difficulty of breathing. Very distressing soreness and stiffness in the joints of the lower extremities, were rapidly succeeded by œdema and purpura from the hips downwards. The purple spots vary-

* It is sufficiently important to be stated, that this lady often continued to suckle her children some time after being pregnant being unconscious that she was in that state for several months after conception.

ing in size, from the tenth to the third of an inch in diameter, were in some parts confluent. Leeches, aperients and blisters were employed during the urgency of this attack, and subsequently under more generous diet, country air, and the use of bark and wine, she was restored to perfect health, excepting that considerable indolent swellings of the submaxillary glands, which came on along with the dropsy and purpura, for a long time continued. She afterwards, in the succeeding summer, employed sea-bathing for some time with apparent benefit.

She had no return of indisposition subsequently until the winter of 1820, whilst she was nursing her ninth child. This attack too was preceded by pains of back and limbs, and still greater languor and debility than in the former one; also by scantiness of urine, and costiveness. Catamenia had sometimes appeared whilst nursing; and it was stated to me, that for two years previous to this period she had been subject, when exposed to cold, to considerable hæmorrhages from the bowels. In this attack of 1820, the purpura was very deep coloured over every part of the surface, and large, especially on the lower extremities. The accompanying anasarca was also more general, as the upper extremities, face and neck partook of it, but it was in the greatest degree on the lower extremities.

My recommendation to wean the infant would

not be yielded to. Bleeding was not employed, and under the use of saline and mercurial aperients, and subsequently of bark and wine, recovery from the external affections went slowly on for more than two months, and general debility continued long afterwards.

On the 25th of December, 1821, whilst still continuing to suckle the child, though with a very scanty supply, she was again attacked with purpura and dropsical symptoms in a very urgent degree, the œdema and purpura being more intense than on any former period, and pervading every visible part of the body and limbs. The breathing became oppressed and hurried; some cough; pulse about 90. Much languor, yet no remarkable diminution of muscular power, as she sat up and went about her house with apparent ease. Tongue white; urine scanty; thirst urgent; pain of back and limbs severe. There were considerable pain and soreness to the touch in the right hypocondrium, the pain shooting towards the shoulder, and encreased when attempting to lie down on the left side.

Blood was now taken from the left arm, and she experienced considerable relief during its flow, which was allowed until twelve ounces were taken, and she sat up during the operation without feeling the least tendency to syncope. The blood became buffed almost as soon as drawn.

Prescribed a mercurial pill to be immediately

taken, and the solution of sulphat of magnesia in infusion of roses, to be administered afterwards in divided doses till the bowels were freed; an expectorating mixture, with syrup of squills occasionally; a warm plaster to the sternum; light chicken broth, and barley water.

December 26.—The purpura and anasarca have almost totally disappeared; the difficulty of breathing and cough had also considerably abated; pulse 76, of natural strength. The nursing has been discontinued, and the lady herself purposes removing into the country in a few days. There is still some pain in the hepatic region. Prescribed, Let a blue pill be taken every second night, and three drachms of sulphat of magnesia daily, if necessary.

During the two successive months she had some returns of purpura and œdema, with scantiness of urine and difficulty of passing it; and for these symptoms she derived much benefit from the internal use of nitre and camphor.

March 29, 1821.—Since this lady's return from the country, about ten days ago, the affection of the liver, with which she had been formerly threatened, became more strongly marked; and being consulted, I found considerable fullness in the right hypocondrium, the liver being perceptibly enlarged, very sore to the touch, the pain shooting to the shoulder, and extending towards the left hypocondrium; the face and eyes were jaundiced;

the vessels on the cornea of the latter very turgid. She has had for some time before her return from the country considerable sanguineous and purulent discharges almost daily with the fæces, or separately ; complained of much internal weakness, frequent palpitations of the heart, and great oppression of spirits, to which she was not naturally predisposed. The pulse, however, was full and firm, 80 in a minute. The catamenia appeared about ten days before. She had been long subject to discharges of blood, per anum, which, from her own feelings, she deemed to be salutary. Prescribed, Let ten leeches be applied to the right hypocondrium, and six grains of blue pill to be taken at night and half an ounce of Epsom salts (dissolved in water) in the morning.

30th of March.—The pills at night, and sulphat of magnesia this morning, produced a plentiful discharge of bilious fœces mixed with grumoæus blood, together with numerous ascarides and purulent matter. The leeches drew a considerable quantity of blood, and the side feels much less painful. The urine, which has been for some time past scanty, continues so, but is well coloured. Pulse 80; rest and appetite improved. Let the side be gently rubbed with camphorated oil for fifteen minutes, night and morning; a warm bath once a week ; the mercurial pills to be repeated every second night, and Epsom salts on

each succeeding morning; a saline effervescing draught three times a day.

This plan being pursued with little variation for nearly three weeks, and the mouth being slightly affected, the morbid condition of the liver gradually gave way; the dyssenteric discharges however still continued, and in the succeeding June threatened ulceration of the intestines, which disease seemed even to extend to the bladder and the other urinary organs; the urine itself held purulent matter in suspension, and the pain and difficulty of passing was so great, as to make the introduction of the catheter indispensable: all these symptoms, however, yielded to the occasional use of the blue pill, assisted by a mixture of castor oil, oil of turpentine, mucilage of gum arabic and peppermint water, but chiefly, as it seemed to me, to a musilagenous mixture with balsam of copaiba. In the month of July she felt from complaint, and shortly after found that she was pregnant, and afterwards, in the usual time, was delivered safely of a healthy child, since which time she has continued to improve in health, and is, at present, September 1822, apparently free from complaint, having nursed her infant until carried off by the croup.

P.S. Although this lady's health has been since occasionally interrupted, during which the functions of the hepatick and mesenterick system seemed chiefly engaged, yet in the spring of this year,

1823, she enjoys comparatively good health, and is going on favourably in her pregnancy, which commenced about six months ago.

CASE II.

March 20th, 1820.

Weather at this time, and for several weeks previously, very cold; wind N. E. harsh and dry.

Mr. S. aged 60 years, very robust, of full habit, and sanguine temperament, had been for many years much affected with hœmorrhoids, from which there were copious bloody discharges, at least monthly. In the commencement of the spring 1819, after a longer interval than usual without such discharges, he was attacked with very urgent symptoms of inflammation of the lungs and liver, from which, under my direction, he was relieved by copious and repeated bleeding from the arm, by the frequent application of a great number of leeches to the perineum, by purgatives, expectorants and blisters.

Since that time he enjoyed good health (excepting his breathing being easily hurried, which he attributed to obesity), until within the last week, when he began to complain of pain in his limbs and back, and of general sense of oppression felt in every part. He, however, continued to

drive daily in an open vehicle into Dublin from his country residence, about a mile in distance, and also to proceed with a sedentary occupation for several hours a day in town, until the 19th instant, when the pains of his joints, especially the knees and ancles, became very acute, and dark blotches appeared on his legs, his breathing becoming at the same time hurried. In the course of that day he took some castor oil, which freely opened his bowels; he afterwards bathed his feet in warm water, took Dover's Powders on going to bed, and had some sleep through the night.

On the 20th of the month the pains and oppression returned with increased violence, and the blotches on the legs extended. An extensive and ill coloured swelling of the fauces and palate came on very rapidly, so that on my first visit, at eleven o'clock that night, it occupied the whole of the mouth and face, internally and externally, to the lobes of the ears and roots of the hair. The integuments on the nose, forehead, cheeks and ears were of a jet black colour, the interstices being of a redder colour than natural; the lips were everted, and so swelled, as was also the tongue, that the posterior part of the mouth and throat could be but indistinctly seen: but such parts as were visible were of a dusky pearl colour, with the cuticle covering them, elevated into one great vesicle, and distended with ill coloured serum. Large black maculæ, some of them an inch in dia-

meter, occupied portions of the surface on the arms, especially about the elbows, over the loins and sacrum, and still more extensively over the feet and legs. Both speech and swallowing were almost totally impeded; breathing laborious; pulse oppressed and intermitting; urine scanty, dark coloured and turbid.

Bleeding being firmly opposed by the friends of the patient, I did not deem it prudent to take the responsibility which, under such unfavorable circumstances, should attach to the employment of that or any other remedy, more especially as the external appearances were such as I had never seen before, and led me to apprehend that gangrene of the parts had already, or would soon commence.*

I directed a solution of tartarized antimony to be given through a tube, till vomiting was excited; enemata of castor oil, turpentine and barm to be administered; a blister to the external fauces, the livid blotches to be fomented with chamomile flowers, camphorated spirit of wine, and warm

* The view which I took of the case at this time being influenced by the generally received opinions respecting the nature of Purpura, possibly prevented me from urging the necessity of bleeding, as I otherwise would; the case therefore appears to me the more instructive, and on that account am led to publish its course with a degree of minuteness of detail which might be deemed unnecessary in ordinary cases.

water; a gargle acidulated with muriatic acid to be employed, and a mixture composed of camphorated julip, tincture of opium, and barm, to be given by a tube, when the sense of fainting (of which he complained at times through the day) should return.

March 21st, 9 o'clock A. M. wind N. E. very cold and harsh.

The swelling of the face much increased, so that the eyelids are quite closed, and the tongue cannot be protruded; the dark colour of the purpura is increased in intensity but not in extent; on the contrary, the margins of those on the face, trunks and extremities, are more definitely circumscribed, the diameter of each varying from one to two inches or more; breathing very difficult, so as to threaten suffocation. Speech and swallowing almost intirely impeded; skin hot and dry; pulse full and laborious in the right arm, feeble and intermitting in the left; thirst urgent. Blister on the fauces rose well, vomit operated and produced a copious discharge of phlegm. The right arm being tied preparatory to bleeding, swelled suddenly and became livid, so that it was necessary to loose the bandage for a short time. The blood which flowed from the orifice made afterwards in the arm, was remarkably dense and black, becoming buffed on the surface almost as soon as deposited in the cup; but as it flowed the patient breathed, spoke, and swallowed with more and more ease. When about 12 ounces were

taken, syncope supervened, the pulse ceasing altogether; but on taking off the bandage, laying the patient in a horizontal posture, and fomenting the epigastrum with flannels and hot spirits, the pulse was soon found to return in the right arm, but not for several hours afterwards in the left; the patient however expressed that he was much relieved.

A blister was now directed to be placed between the shoulders; a solution of sulphat of magnesia in infusion of roses, to be assisted by turpentine enemata. Emolient gargles to be employed, and weak Madeira negus and barley water for drink.

One o'clock, P. M. The relief obtained by the bleeding in the morning still continued, but the bandage having accidentally loosed in the mean time, he has lost a very considerable quantity of blood in consequence of it. Pulse feeble in the right arm, but not to be felt in the left. There was no apparent diminution of muscular strength, and the patient was able to get out of bed without difficulty. Purpura was unchanged; had two bilious stools; urine was scanty and turbid; expectoration more free; the upper extremities were anasarcous.

Half past three o'clock, P. M. Having asked in the morning for a consultation, Doctor John Crampton now met me. The appearance of the face, trunk, and extremities, was now truly formidable, resembling that of a putrifying cadaver

inhumed in hot weather; the patient however, could speak and swallow better; the pulse still however continued weak, especially in the left arm. Still however there was no apparent diminution of muscular strength; the purpura on the hips and nates were very extensive, and tangibly elevated at the margin; the urine was scanty, holding extravasated blood in solution; stools were also scanty. The blood taken in the morning appears at present like one mass of size.

In addition to the means previously in use, frequent and small doses of a solution of tartarized antimony and crystals of tartar were now prescribed.

Seven o'clock in the evening.—External appearances were not changed, but the patient himself felt better; the tartarized antimonial mixture caused free expectoration. Pulse was now firm and 100, but still unequal in the arms; urine and stools scanty, and the enæmata were quickly returned without the desired effect.

A pill, containing three grains of blue pill and one of calomel was now directed to be taken every sixth hour until the bowels were freed. The medicines were ordered to be continued as at mid day.

March 22d, 11 A. M.—Weather still very cold and dry; rested well, and awoke much refreshed; has had four copious bilious stools, getting up out of bed without any assistance; cough and expectoration were much freeer; swallowing and speech were improved; the purpura was of the same co-

lour; aud the interstices of a brighter red; the swelling of the face and inside of the mouth was diminished so that the throat and tongue could be seen somewhat better; their appearance was not changed from that first described, except that the tongue was more loaded and brown in the centre. Skin was softer, and thirst less. The upper extremities were œdematous, and large patches of purpura extended on them from the elbow up the humerus, and down to the hands and fingers. The deep pittings caused by the pressure of the finger in feeling the pulse was quickly succeeded by black stains. The blister had risen well, and the skin surrounding the part looked well. The urine was free, but turbid, with a bricky deposit. Medicines had been given regularly since the last visit, except the mixture with tartarized antimony, which had been discontinued since midnight. Prescribed. Let him have grapes and oranges freely; and the mixture with tartarized antimony and crystals of tartar to be repeated.

Seven o'clock, evening.—Had been very uneasy and restless through the day, and for the preceding hour the breathing had been so much oppressed that his friends in despair were then averse from farther trial of remedies. The œdema of the arms was considerably encreased; the purpura remained stationary; the swellings of the face and throat however was so much better that he could drink and speak more freely than he had done for forty-eight hours before.

Pulse was much fuller in both arms, 100 in the minute; had frequent cough; urine was more free, but belly still costive; the glysters were immediately returned; he felt great impediment of breathing in the recumbent posture, and considerable pain and uneasiness in the lower part of the abdomen.

Prescribed fiteen leeches to be applied close round the anus; a pill containing three grains of blue pill and one of James' powder to be given to him every fourth hour; the enemata and solution of Epsom salts to be repeated as soon as the leeches had fallen off, and expectoration to be assisted by the solution of tartarized antimony and emollient gargles.

March 23.—Got very little sleep; the leeches directed were not applied till six this morning, and since that time he has experienced considerable relief. The general symptoms, however, though in some degree, were not materially improved except his strength, which was much encreased. His pulse was ninety, and firm; urine was free, and expectoration copious; lay horizontally with ease; one bilious stool. Prescribed. Let the aperient mixture be continued, and his expectorant gargle and drinks.

Seven o'clock P. M.—Medicines were not administered; and belly was costive. Had past a restless day, otherwise no material change took place in the symptoms, but the colour of the purpura was not so intense. The difficulty of swallowing was

also greatly diminished, and could speak with ease. Tongue was still however much swelled, and there was a great discharge of saliva from the mouth, but without either any mercurial odour or any other kind of fœtor. The throat could not be seen on account of the swelling of the tongue; he however drank off without difficulty four ounces of the solution of Epsom salt. I now directed that the remedies be more steadily and regularly administered than they had hitherto been, and that if any other urgent paroxysm of dyspnœa should come on, that he be immediately bled freely from the arm.

Early on the succeeding morning the family, being impressed with the opinion that the interference of art could avail nothing, I received a message from them not to pay my intended visit; but at ten o'clock, A. M. was called for by the patient's desire to see him with as little delay as possible. On my way I met Mr. Mansfield, who had just witnessed his dissolution.

Mr. M. further informed me, that when called on about half an hour before, he found the dyspnœa increased almost to suffocation, that the pulse was even then full and firm; but that whilst he was preparing to bleed him, according to my previous direction, a sudden convulsion came on, during which the patient expired.

DISSECTION.

An examination of the body five hours after

death (made with the assistance of Mr. Daniel, Lecturer on anatomy in Peter-street hospital) presented the following appearances, viz.—

Externally, the purple spots were of the same circumscribed extent, and of the same jetty hue, on the various parts of the trunk and extremities as before death; the interstices however were pale. No fœtor of any kind exhaled from the body.

The trunk and extremities were every where thickly enveloped in fat; but notwithstanding this the great muscularity of these parts was strongly marked externally.

The surface of the body was not entirely cold, but the joints had become quite rigid.

Incision through the integuments discovered the fat, which was very abundant in every part examined, but especially in the omentum and mesentery, in a perfectly fluid state.

The liver was encreased much beyond the natural size, and completely resembled the "Foie endurcie et engorge par de matiers muquense," as described by Portal.* Two gall stones found in the gall bladder, each the size of a hazel nut, were hard in consistence, of a quadrangular shape, and colour of a tamarind stone. The bile surrounding them, and that found fluid in the bilary ducts, was of the colour of ochre, and extremely glutinous.

* Cours D'Anatomie Medicale, &c. &c. &c. par Antoine Portal, &c. &c. &c. Tome cinquieme, page 313.

The stomach was perfectly sound, and, as it lay, distinctly presented the contraction described by Home.

The entire tract of the intestinal canal being laid open, large patches of purpura, in extent and colour resembling those on the external surface of the body, were to be seen on several parts of the interior surface of the intestines.

The spleen, pancreas, and urinary bladder, did not appear to suffer any change in colour or position from the effects of disease during life, and the last of these was empty and contracted.

THORAX.

The cartilages of the ribs were so firmly ossified as to require very powerful exertion with a saw to cut through them, the ossification having far exceeded what is usually found to have taken taken place at the age of sixty years. There was a very strong and close adhesion of the lungs to the parietes of the thorax, very generally on the right side, and slightly on the left. There was no preternatural effusion in any part of the chest; neither did the fluid found in the pericardium exceed what is usually met with in that cavity.

The heart was natural in size and colour, but with a great abundance of fat. In its right ventricle a firm buffy coagulum was found, three inches in length, one inch and an half in breadth,

and half an inch in depth, having two branches, each extending about one inch and half into the pulmonary arteries. This coagulum was so firm as to require considerable force of the fingers to break it. The blood in every other vessel cut into was yet perfectly fluid. No serum or red blood was found in the right ventricle or pulmonary veins.

I regret that farther examination was prevented. However, as the head was not affected in the course of the disease, I think it is probable that we witnessed every appearance which could throw light on the " ratio symptomatum," or account for the manner in which death happened.

OBSERVATIONS.

Many striking circumstances, in which the two foregoing cases of complicated dropsy and purpura resembled each other, will contribute to simplify observations made on them. Some difference in the predisposing causes, as connected with sex, habit and temperament, may account for the different degrees of violence in the symptoms, and perhaps for the opposite results in the two cases, the course of the first being rapid, and its termination fatal, the other proceeding more slowly, and ultimately yielding to remedies.

The exciting causes appear to have been the same in both, namely, morbid collection in the mesenteric, hepatic and hæmorrhoidal vessels, the

periodical discharges of which had frequently given relief in the last case, and with its total suppression the symptoms of dropsy and purpura commenced.

There was a remarkable similarity in the symptoms also, for oppression and pain preceded the dropsical and purpural effusions in both cases, and these indications of partial, or of general plethora were relieved, though not in the same degree, by bleeding. An affection of the throat was common to both, and it has therefore been suggested to me, by an intelligent medical friend, that they might be considered as modifications of cynanche maligna; but the remarks made by Doctor Blackall in his observations on dropsies, on some cases resembling land-scurvy, are so apposite, that I may be allowed to make a partial extract from that useful work. "Two of them "in particular,"* he writes, "can be hardly said "to differ at all from the purpura described by "Dr. Willan. It is important to recollect that "this disease is not characterized by sponginess "and bleeding of the gums, as an essential "symptom; that it originates in causes materially "different from those which produce the sea-"scurvy, and is apparently of a more inflamma-"tory nature. In the two cases above alluded "to, it was hardly possible to overlook the acute-"ness of the attack, the signs of inflammation

* See Observations on the Nature and Cure of Dropsy, &c. by J. Blackall, M. D. &c.

" in the upper part of the abdomen, and that " remarkable metastasis to the surface of the " body and the extremities. In some of these " respects, they greatly resemble the case men- " tioned in the introduction to this work, as oc- " curring at St. Bartholomew's Hospital, and in " which nothing but the diabetic discharge of " urine appears to have prevented dropsy.* Ve- " næsection would, I believe, have been their ap- " propriate remedy ; in the early stages, probably " a successful one ; nor does the presence of pe- " techiæ furnish any insuperable obstacle to such " an operation. Sydenham considered purple " spots as the height of inflammation in fevers. " Dr. Darwin† met with several examples of pe- " techiæ, vibices, swelled legs and pulmonary " hæmorrhage, which he calls scorbutic, attended " by an inflamed blood ; and Dr. Parry has in- " serted in the 5th volume of the Edinburgh " Medical and Surgical Journal, two instances of " a similar nature. Such authorities stand in " need of no addition, except in ascertaining the " frequency of the occurrence."

All the instances alluded to by Dr. Blackall, and by the authors quoted by him in the foregoing extract, seem to me to be of the same nature with the cases here denominated Dynamic Dropsy and Purpura, and they may be distin-

* Introduction, p. v.

† Darwin's Zoonomia, vol. I. sect. xxvii. 2.

guished from the diseases which resemble them most, and from their own Adynamic kind, by the following diagnostic symptoms, viz. From Cynanche Maligna, by the absence of ulceration and fœtor in the throat, by not being attended with the same prostration of strength, and by the dropsical effusion being generally synchronous with the cuticular eruption; and lastly, by that siziness of the blood so remarkable in this form of these diseases. Besides that the gums are not spongy, as in scurvy, these forms of disease may be further distinguished by the difference of the exciting causes; one set of symptoms mostly arising from suppressed discharges or eruptions, and the other generally from the privation of fresh vegetable diet or good air.

The complicated cases of Dynamic Purpura with Dropsy may be distinguished from the Adynamic, by the former being preceded by greater degrees of muscular pains, and by symptoms of plethora, such as general oppression and labouring pulse; and finally, by the buffiness of the blood. The diagnosticks of the simple forms of Purpura and Dropsy will be mentioned subsequently, when these forms of disease are brought under consideration.

The prognosis, in such cases as the foregoing, may be pretty accurately pronounced from the patient's report of the effects of the bleeding. If he expresses relief after the operation, and this

be accompanied with corresponding improvement in the pulse, a favourable issue may be expected. On the contrary, if the patient feels much weaker, the pulse becoming more feeble, and if the purpural and dropsical effusions do not afterwards abate, then the prospect becomes proportionably more unfavourable.

The acknowledged difficulty of rendering a ratio symptomatum in either of the diseases complicated in the cases we have been considering, might be an excuse for not making the attempt, however the illustrations themselves, which the diseases as well as the cases mutually afford, but especially the appearances found on dissection, demand that this part of the subject should not be passed over in total silence.

Morbid accumulation in the hepatic, mesenteric and hæmorrhoidal vessels, having been common to both these cases in their commencement, it has been assumed as the connecting cause of the succeeding symptoms. That such accumulation, as well as the morbid appearances of the blood, which it presents soon after being drawn, in the course of these and similar diseases, arise from imperfect or irregular sanguification, appears, I think probable, from consideration of the two chief sources of supply to the sanguiferous system, and the similarity of the fluid (in its colour and properties at these sources, and previously to its being submitted to the action of

the lungs or liver) to the buffy coat, that substance observed on the surface of blood drawn in certain diseases having been so called : an opinion, which I have been further induced to think well founded, from the results of a considerable number of observations lately made at my request on blood shortly after it was taken, from persons labouring under various forms of disease, nearly under the same circumstances.

The morbid condition of the blood, and the excessive plethora which was so remarkable in the second case, were produced by early constitutional predisposition, as evinced by the periodical rupture of the hæmorrhoidal vessels, and the temporary relief obtained by the consequent discharge from them : secondly, by the stimulus given to this patient's constitutional tendency to make blood rapidly, by the copious bleedings to which he had been necessarily submitted in the spring of the preceding year ; an effect, which though not easily accounted for, yet is well known to medical observers :*— and lastly—by the suppression (for some time previously) of the hæmorrhoidal discharges themselves, leading directly to congestion in the mesenteric and hepatic vessels, and from thence to that of the vascular system in general.

The general oppression and severe articular

* Blood thus rapidly made, is not perhaps sufficiently sanguified.—See first and second cases in the Preface.

pains whch both patients suffered in the commencement of their complaints, and the dyspnœa and oppressed pulse which succeeded, may be fairly attributed to the excessive degree of plethora. The purpura and œdema, however in these cases, seem to have been produced not only by that increase in the quantity of blood, but also by a change in its properties, the distension of the extreme vessels, so as to admit of the dense and coloured part of the blood being facilitated, particularly in the second case, by the debilitating effects of intensely cold winds.

The cessation of the pulse for a short time over the whole system, and in one side for nearly two days, not being accompanied, as in ordinary syncope, with loss of power in the voluntary muscles, can only be referred, in my opinion, to a morbid condition of the blood.

The *post mortem* examinations which were made in the second case, of the parts previously occupied by disease, discovered no disorganization which could account for the symptoms detailed in the history of the case, and one appearance alone was presented, which could be fairly considered to give a satisfactory explanation of the cause and sudden manner of dissolution; that was the firm buffy coagulum found in the right ventricle of the heart, which was proved in this instance by many striking circumstances to have been formed before death, and also

seemed to be a sufficient cause, and therefore to afford a satisfactory explanation of the manner in which that event took place.

I trust I shall appear to be supported by the facts which have been already noticed in the history of the cases under consideration, and by the subsequent dissection, and be thus justified in what otherwise I would not presume, to question an opinion so generally received and entertained by the most distinguished of the modern anatomists.*

The blood drawn in the course of the disease coagulated, and became sizy at the same moment, and almost immediately after it flowed into the cups which received it, which shew both its ten-

* "This polypus (says Dr. Bailie) has been considered by "the old anatomists as a very common and a very fatal disease. "By many of the moderns it has been rejected, as a dis- "ease, altogether. * * * * *

"When polypi are formed, I believe that the coagulation of "the blood does not take place very quickly after death. They "are without any admixture of red globules of blood, and "therefore the blood has been sufficiently long in coagulation "to allow the globules to separate, in consequence of their "greater specific gravity." A reference to the annexed tabular view of observations made on the blood will, I think, shew that slow coagulation is not necessary to the formation of the buffy coat, but that in instances where it was found most abundant, coagulation went on much more rapidly than where no such appearance occurred.

See Morbid Anatomy, by Dr. M. Bailie, &c. &c. &c. page 21 and 23.

dency to become solid, and that its sizy surface did not depend on slow coagulation.

The temporary cessation of the pulse, without any loss of general muscular power, seemed further to mark that strong cohesive tendency of the blood, even whilst it still circulated in the sanguiferous system.

From the unusually short time after death in which the examination was made, the blood was found fluid in every other vessel cut into, and neither the serum or red blood, which must have separated from the coagulum during its formation in the right ventricle and pulmonary arteries, were to be found there, further proving that this phenomenon must have happened during life, as it could only be by vital power that the parts of the blood thus separated could be propelled to other vessels.

As I shall not again resume the consideration of these cases until the *ratio and methodus medendi* are generally treated of, I should not omit, in answer to objections which I apprehend will be made as to the extraordinary length and minuteness of my detail of symptoms and of remedies, to state that the remarkable course and severity of these symptoms seemed to me to claim minute notice; and that now, publishing the history of them, I conceive that I offer the most secure clue to the reader in the difficult task of connecting the chain of causes, by giving the morbid appear-

TABLE II.

A comparative statement of the weather in the months of November, December, January, February, March and April, during the years 1819, 1820, 1821, 1822 *and* 1823.

	1819-20.									1820—21.								
	Barometer.			Thermometer.			Weather.		Wind.	Barometer.			Thormometer.			Weather.		Wind.
	G.H.	L.H.	Mid.	G.H.	L.H.	Mid.	Day Fair.	Day Wet.	Prevailing.	G.H.	L.H.	Mid.	G.H.	L.H.	Mid.	Fair.	Wet.	Prevailing.
* Nov.	29.98	29.00	29. 49	54	30	42	13	17	W. & SW.	30.20	29.39	29.795	57	34	45.5	18	12	S. and SE.
† Dec.	— 99	— 01	— 50	58	30	44	20	11	W.SW.NW.	— 03	29.78	— 905	55	36	45.5	19	12	NE.S. &SW.
‡ Jan.	30.56	28.86	— 71	52	20	36	14	17	S. SE. SW.	— 57	28.98	— 775	55	35	45	10	21	S. and SE.
§ Feb.	29.13	29.48	— 305	55	35	45	18	11	S. SE. E.	— 40	29.11	— 755	53	33	43	25	55	E. and SE.
‖ Mar.	30.19	29.00	— 595	59	33	46	16	15	S. SW. W.	— 16	29.93	23.545	51	36	43.5	22	9	SW. W. S.
¶ April.	— 13	— 11	— 62	61	36	48.5	14	16	E. S. W.	30.04	28.91	29.475	59	40	49.5	18	12	SW.W.NW.
* Nov.	Much cloudy weather, heavy rain on 20th, 25th and 29th.									Hazy cloudy, with rain to the 25th, fair, with fog after.								
† Dec.	Hazy to the 9th, snow with frost occasionally to end of the month.									Cloudy, with rain to 13th, snow, cloudy and fair to 27th, snow.								
‡ Jan.	Snow to middle of month, hazy and cloudy to the end.									Heavy rain to 4th, snow, frost 3 days, cloudy after, with frost occasionally.								
§ Feb.	Foggy and cloudy to the 20th, heavy rain with hail, snow on 24th.									Much frost during the month, fog, very cold on 17th, cloudy after.								
‖ Mar.	Snow, with cloudy weather to 17th, fair a week, hail 25th, cloudy after.									Cloudy, with rain to the 10th, fair and cloudy to 20th, *aurora borealis*.								
¶ April.	Rain and cloudy first ten days, then fair and cloudy, Therm. 61º a 21″.									Hail. with storm on 4th, W. cloudy, heavy rain on 24th and 25th, fair after.								

	1821—22.									1822—23.								
	Barometer.			Thermometer.			Weather.		Wind.	Barometer.			Thermometer.			Weather.		Wind.
	G.H.	L.H.	Mid.	G.H.	L.H.	Mid	Fair	Wet:	Prevailing	G.H.	L.H.	Mid.	G.H.	L.H.	Mid.	Fair	Wet.	Prevailing.
* Nov.	30.15	28.89	29 52	64	42	53	13	18	SW. S.SE.	30.05	28.78	29.415	60	37	48. 5	6	24	S. SW. W.
† Dec.	— 05	— 11	— 08	57	53	45	21	10	SW. & W.	— 54	— 64	— 59	49	31	40	19	11	SE. SW. S.
‡ Jan.	— 29	29.06	— 675	51	37	44	17	14	S. W. W.	— 13	— 71	— 42	51	27	39	18	13	S. SE. SW.
§ Feb.	— 62	28.78	— 75	53	38	45.5	12	16	W. SW.	— 30	— 82	— 56	52	32	42	11	17	SW. NW. W.
‖ Mar.	— 46	29.36	— 94	56	36	46	16	15	SW. W.	— 40	— 38	— 64	52	33	42. 5	12	19	W. SW. NW.
¶ April.	— 41	28.84	— 625	62	41	51.5	14	16	S. SE.	— 38	29.12	29.75	57	38	47. 5	14	16	NW. N. E. SE.
* Nov.	Storm and rain early, frost and cloudy after, changable throughout.									Cloudy, hazy, with rain almost the entire month, hail on the 27th.								
† Dec.	On 28th Barometer at 5½ p. m. fell to 28. 10. wind SW. but moderate.									Storm on 5th, SW. eloudy, fair with frost, heavy rain on 29th.								
‡ Jan.	Cloudy, with hail, frost at beginning, hazy after to 20th, fair to the end.									Beginning very wet, cloudy, but fair from 9th to 14th, heavy snow, with frost after.								
§ Feb.	Heavy rain with storm on 2d, W. hail on 20th, cloudy throughout.									Hail with snow the entire month, very variable weather throughout.								
‖ Mar.	Heavy rain on 7th, 8th and 9th, with snow, fair with cloudy after.									Hail, snow, wet variable weather throughout, storm on 3d and 7th.								
¶ April.	Cloudy to 7th, thunder, hail on 10th, cloudy, with fair to the end.									Storm on 2d, cloudy, snow on 19th, hazy with rain to 26th, fair after.								

The columns of this table, as in that of No. I. embrace the months of the years 1822 and 1823, in which the Influenza prevailed in this country, and also the corresponding months of the three preceding years.

" Vides adeo, Lector amicè, quantum *ad* Prophylaxin valeant Observationes meteorologicæ, quantumque etiam ad Morborum Curationes.—His igitur fruere modò, tandemque meliores ede.—Quatenus nobis denegatur diu vivere, relinquamus aliquid, quo nos vixisse testemur."*

* Vide Observationes de Aere et Morbis epidemicis, Volumen alterum, Auctore Johanno Huxham, M.D. R.S.S. Edit. Lond. 1752, Præfat. p. 19.



TABLE I.

To face page 37.

Number.	Date.	Name and age.	Pulse.	Disease, or urgent symptoms.	Length of time until blood began to coagulate.	How soon buffy coat, if any, appeared.	How soon coagulation was complete.	Density and colour of blood.	The time during which the blood was flowing.	Quantity of blood taken.	Colour and density of the buffy coat.	General Observations.
1	1822, Dec. 13	Margaret Kelly, æt. 38,	100 hard,	Pain of chest and stomach; dyspnœa,	8 min.	8 min.	15 min.	Colour dark and dense,	4 min.	8 oz.	White and buffed,	This patient was attacked with symptoms of pneumonia soon after her removal to the convalescent wing.
2	13	Robert M'Gibney, æt. 40,	96 hard,	Pain of chest and cough, pyrexia,	40 min.	Not buffed,	1 hour,	Dark and thin,	3 min.	10 oz.	None,	The local affection in this case seemed connected with the pyrexia, which probably was primarily produced by contagion.
3	14	William Burke, æt. 28,	96 soft,	Pain in side,	2 min.	slightly buffed,	15 min.	Dark and dense,	4min.	10 oz.	Light and frothy,	Pneumonia, for which copious bleeding had been previously employed.
4	14	—— Denny, æt. 34,	100	Pain in right temple,	3 min.	3 min	20 min.	Dark,	3 min.	9 oz.	Light and bubbulous	Hepatitis.
5	15	John Kenny, æt 24,	100 hard,	Enteritic pain,	10 min.	Not buffed,	20 min.	Dark and not dense,	2½ min.	4 oz.	None,	Pulse sunk soon after blood began to flow; the pain was considerably relieved.
6	15	William Burke, æt. 28,	96	Pain in side, and urgent cough,	5 min.	Slightly, in 6 min.	12 min.	Not dark,	3½ min.	8 oz.	Light coloured,	Pain relieved, and pulse became fuller after this bleeding, but cough even more frequent.
7	15	— O'Shaughnessy, æt. 50,	100	Pain of chest, dyspnœa,	4 min.	6 min.	8 min.	Dark and dense,	2½ min.	6 oz.	Dark coloured,	This was the third bleeding, and gave some temporary relief; expectoration copious and purulent.
8	15	Robert M'Gibney, æt. 40,	100	Pain of chest and dyspnœa,	3 min.	5 min.	12 min.	Dense,	2 min.	8 oz.	Light coloured,	The local affection more urgent on this than on the former day of bleeding.
9	16	William Gorman, æt. 24,	100 hard,	Cough and dyspnœa,	14 min.	16 min	20 min.	Dark and dense,	9 min.	8 oz.	Dark colour,	This patient was convalescent from fever for some days, when the pain of chest and dyspnœa supervened; had been bled during convalescence.
10	16	John Byrne, æt. 14,	100 hard,	Cough and pain of chest, dyspnœa,	10 min.	10 min.	20 min.	Very dark and dense,	7 min.	8 oz.	Dark coloured,	This was the fifth bleeding which this boy underwent since admission into hospital; his illness was the effect of cold contracted as a sweep chimney.
11	Dec. 17	E. Fitzgerald, æt. 44,	100	General pains and oppression,	5 min.	5 min.	10 min.	not dense,	3 min.	9 oz.	White, with little tenacity,	Influenza, mucous membranes affected.
12	18	Thomas Connell, æt. 50,	108	Cough, Hoarseness and stitches,	8 min.	Not buffed,	10 min.	Texture loose,	4 min.	9 oz.	None,	Influenza, not relieved by the bleeding.
13	20	F. Hayden, æt. 24,	100	Hoarseness and stitches,	8 min.	Not buffed,	15 min.	Light colour and texture	5 min.	9 oz.	None,	This was the third bleeding, and the patient felt much relieved by it.
14	28	Catherine Byrne, æt. 22,	90	Stitches,	5 min.	Not buffed,	15 min.	Loose, and light colour,	3 min.	10 oz.	None,	Bleeding gave much relief, was not repeated.
15	28	Mary Waters, æt. 48,	90	Hepatitis,	5 min.	5 min.	7 min.	Dark and dense,	4 min.	12 oz.	Dark and deep,	Repeated venesections, aided by mercury and digitalis, were found necessary.
16	30	Mary Knox, æt. 50,	100	Stitches and cough,	5 min.	Not buffed,	40 min.	Light and loose,	5 min.	9 oz.	None,	Soon relieved by bleeding.
17	31	A. Reilly, æt. 41,	110	Combined pneumonia and hepatitis,	3 min.	3 min.	10 min.	Dark and dense,	3 min.	12 oz.	Cream colour, cupped,	Repeated bleedings, mercury and digitalis necessary.
18	1823, Jan. 1	John Byrne, æt. 26,	90	Hoarseness and stitches,	7 min.	Not buffed,	4 hours	Loose and light,	4 min.	8 oz.	None,	Influenza.
19	2	J. Byrne, æt. 68,	96	Very pneumony,	7 min.	Not buffed,	Not at all	Loose and dark,	3 min.	7 oz.	None,	A broken down constitution.
20	3	P. Keogh, æt. 44,	100	Lungs and liver affected,	4 min.	4 min.	40 min.	Loose and light,	6 min	10 oz.	Pink colour, and dense,	Blood drawn from two other persons yesterday is not either coagulated or buffed.
21	3	M. Ennis, æt. 36,	100	Stitches,	40 min.	Not buffed,	Never,	Light and loose,	4 min.	8 oz.	None,	Influenza.
22	17	John Noon, æt. 38,	90	Hepatitis,	1 min	1 min.	10 min.	Dark and dense,	3 min.	10 oz.	Dark and dense,	Relieved by bleeding.
23	18	A. Graham, æt. 39,	100	Stitches,	20 min.	Not buffed,	Never,	Loose and serous,	4 min.	9 oz.	None,	Influenza.
24	18	Mary Mullen, æt. 20,	110	Pneumonia,	4 min.	5 min.	5 min.	Dark and dense,	5 min.	10 oz.	Light colour, and cupped,	Relieved by bleeding.
25	29	P. Mulvany, æt. 28,	98	Stitches,	10 min.	Not buffed,	4 hours	Loose,	4 min.	10 oz.	None,	Influenza.
26	30	F. Conran, æt. 30,	110	Pneumonia and hepatitis,	2 min.	2 min.	15 min.	Dark and dense,	3 min.	10 oz.	Dark,	Repeated bleeding necessary.
27	Feb. 1	Martha Connor, æt. 29,	96	Stitches,	2 min.	Not buffed,	Never,	Loose,	4 min.	8 oz.	None,	Influenza.

ances in the exact consecutive order in which they were presented to me, and the means employed, so that he may judge how far these means influenced the interruption or continuation of that chain. Besides, I deem it more satisfactory to give a few select cases in full, than to multiply such as might have been irregularly noted, or imperfectly recollected.

OBSERVATIONS ON THE BLOOD.

Previously to entering on a detail of distinct forms of Dropsy, and of Purpura, I shall present a tabular view, which will exhibit observations made on blood after being drawn, in various cases admitted into the Fever Hospital and House of Recovery in Cork-street during the latter end of the last, and commencement of the present year. This table was prepared by our apothecary, Mr. Hale, and by his assistant, Mr. M'Mahon. Their kindness in undertaking that additional trouble, at my request, demands my best thanks.

Under the various columns of Table I. (opposite) the appearances of the blood, and the circumstances which might be supposed to influence those appearances, are detailed, so that the comparison for which it was constructed can be made almost at one view.

This tabular view does not require, perhaps, to

be extended to a greater number of cases than are already included in it, to decide the question which was the main object in its construction, whether or not the buffed surfaces on blood drawn in several kinds of diseases were necessarily and essentially connected with slow coagulation. By comparing the first horizontal column with the second, the fourth with the fifth, or any of those in which blood is stated to have had, with those which had not such surfaces, it will be found that, in the former instances, the time of coagulation was never proportionate, but often inverse to the extent and degree in which that process took place. The application of such facts in pathological enquiry appears sufficiently obvious, with a view not only to ascertain the nature of diseased actions, but where they primarily commenced, and whether wholly confined in some instances to the fluids or in others to the solids.

The explanation for some time given of such appearances on the blood is incompatible with these facts, thus detailed, and the opinion involved in that explanation, that slow coagulation was caused by the violent agitation the blood had undergone previously to its being drawn, may perhaps be also questioned. Instead, therefore, of attributing these appearances of the surface merely to the subsiding of the red particles during the slow condensation of the lighter parts, we are, I think, warranted in supposing that an altered and unhealthy state of the blood, exceed-

ing the effects of mere agitation, takes place in the course of circulation, either from want of due preparation of the fluids at the two chief sources of supply, and of the subsequent changes these fluids should undergo in their passage through the pulmonary, sanguiferous, and hepatic systems, or from the injurious effects of diseased functions in the organs of sanguification.

The colour and external characters which designate various kinds of buffy coat, being also found to indicate the particular functions engaged in producing them, afford additional arguments in favour of the foregoing opinions. In simple pneumonia, for example, as appears from inspection of the table, the coat on the blood is generally of a colourless white; but when tinged, it is with bright red, the depth of the tunic, seldom exceeding a few lines, and to this probably it is owing that the cupping on the surface of such blood is generally remarkable; the thin and tenacious film contracting as it forms, and drawing towards the centre the external margin at the circumference of the less contractile crassamentum.

In simple forms of hepatic disease, on the contrary, the buffy covering is generally darker through its whole substance than in pneumonia, and is externally yellow. It occupies a large proportion of the solid part of the blood, and is not often cupped; when it is cupped, there is reason to suppose that the lungs are partly engaged.

In diabetic complaints, which there is so much reason to believe originate in imperfect digestion, or insufficient preparation of chyle, it is well known that when blood is drawn it is often found covered over with a whitish milky-like fluid.

I am the more desirous to direct the attention of medical observers to these circumstances, as if I judge rightly, they will be found to afford effectual aid, not only in reasoning how the surfaces in question were produced, but also in discriminating between the organs affected, with a view to remedy. The observations, indeed, which have been made here, being confined merely to the surface of the blood, embrace but few of the advantages in pathological investigation, which, I conceive, a more general attention to the condition of all the parts of the serum and coagulum would contribute.

In a conversation which I lately had the pleasure of holding with Mr. Todd, professor of anatomy and surgery in our College of Surgeons, I learned with satisfaction that the opinions which led to the foregoing observations on the diagnostic characters of the buffy coat coincided with his extensive experience; and he stated to me a fact which appears to me highly important, that in passing through the wards of the hospitals of the House of Industry, to which he has been for many years surgeon, he could, on inspecting the cups of blood taken in different diseases, be able frequently to pro-

nounce what organs were primarily or chiefly engaged in those who were bled; that with the white and cupped surface having indicated the lungs to be the seat of disease, and that with the dark yellow colour and equal surface, the liver.*

From the difficulty of ascertaining any infallible diagnostic between certain forms of pulmonary and hepatic diseases (which have so many symptoms alternately or in common), the foregoing observations will, if found applicable in practice, be justly appreciated.

In making these remarks on the various kinds

* That the colour of the skin, as well as that of the blood from which that is probably derived, is produced in various diseases either by want of due elaboration of the blood in the lungs or of separation of its denser parts by the liver, or depends on some morbid change in its transmission through these organs, is rendered probable (I think), not only by the phenomena observed in the human species, but also in other animals; and if the Leucophlegmatic Dropsy can be often traced by the physician to imperfect digestion in the stomach, or impeded sanguification in the lungs, so can the yellow colour and bitter taste of the flesh of his flock be traced by the shepherd to diseased liver, to which some pastures particularly predispose; and it is only perhaps by supposing that during the hurried transmission of blood through the liver, such as agitations of the mind in many effect on that organ, and sometimes attended with icteric colour, that a circumstance known to the ornithologist can be explained, viz. that if certain birds are wounded, but not totally deprived of life, a few moments of such anxious existence would be found to impart a bitter taste to their flesh, which would not be if they had been immediately killed.

of surfaces presented by blood under certain circumstances, I do not wish to be misunderstood as concurring in the opinion that the buffy coat is always indicative of inflammation, an opinion which does not accord with my experience; on the contrary, I have often witnessed much of that sort of appearance on the blood drawn in certain kinds of dropsies, when the patient had neither increased action of the vessels, nor any unusual sensation of pain or heat in any part; but, on the other hand, in certain conditions of the mucous lining of the cavities or of the viscera, when all other characteristics of inflammation were present, no buffy coat appeared on the blood after being drawn.

I am inclined, from what I have seen in such cases, to think that when inflammation is confined to the mucous membranes, the blood is not generally buffed; and that when it is in a sizy state, that then the texture of the liver or lungs is directly engaged, or affected by sympathy with the parts concerned, so as to influence the condition of the functions in these organs.

This last opinion will be further illustrated by a short account of the course of the influenza that has prevailed so generally in this city during the last five months, down to the present, inclusive, which may be seen in the succeeding pages.

By the kindness of my friend Mr. Rawden M'Namara, surgeon to the Meath Hospital, &c.

&c. &c. I am enabled to make the following valuable addition to the foregoing facts and observations.

In Table II., annexed, is the result of observations made by him, at my request, in the course of February and March, 1823.

TABLE II.

NAME.	Age.	Disease.	Quantity.	Time of flowing.	Time of becoming solid.	Observations.
Ellen Hughes,	22	Catarrh,	10 oz.	4 min.	10 minutes,	No buff.
Rose Byrne,	22	Pneumonia,	12 oz.	4 min.	11 minutes,	No buff.
Margaret Page,	30	Catarrh,	12 oz.	3 min.	10 minutes,	No buff.
Catharine Purcell,	30	Catarrh,	15 oz.	4 min.	13 minutes,	No buff;—this woman was pregnant.
Joseph Wensey,	50	Catarrh,	15 oz.	4 min.	11 minutes,	Buff.
Christopher Fitzharris,	16	Catarrh,	15 oz.	7 min.	14 minutes,	Buff.
Darby Murphy,	60	Pneumonia,	16 oz.	5 min.	12 minutes,	Buff.
Charles Murphy,	32	Pneumonia,	12 oz.	6 min.	12 minutes,	Buff.
Mary Black,	32	Pneumonia,	14 oz.	6 min.	12 minutes,	No buff;—pregnancy doubtful.
John M'Donnell,	16	Fever,	10 oz.	4 min.	19 minutes,	No buff.
Margaret Cullen,	22	Pneumonia,	6 oz.	6 min.	12 minutes,	No buff,—syncope.
John Moore,	30	Pneumonia,	6 oz.	3 min.	12 minutes,	No buff.
Anne Smith,	40	Pneumonia,	10 oz.	4 min.	9 minutes,	Buff.
John Kelly,	27	Catarrh,	16 oz.	4 min.	10 minutes,	Buff.
William Smith,	29	Hepatitis,	14 oz.	3 min.	11 minutes,	Buff.
Mary Wilson,	36	Enteritis,	16 oz.	4 min.	10 minutes,	Buff.

In all the cases of the preceding table patients were bled in the dressing-room of the Meath Hospital, the temperature of which was about sixty; the orifices were as uniform in size as possible; the vessels into which the blood was received were the bleeding cups of the Hospital, which were kept perfectly clean, and the blood was placed in an open press for twenty-four hours afterwards.

I have not used the word "coagulation" at all, lest it might give rise to uncertainty, the process of coagulation being a slow one; but as soon as the blood presented an homogeneous solid mass, which I ascertained by touching the surface of it with the point of my fingers, I declared it to be solid. It is unnecessary to observe that I superintended these and many more experiments myself, but as they accurately resembled the above, I see no reason for detailing them.

R. M.

York-street,
April, 19, 1823.

It will be seen, by comparing this with the foregoing table, that they accord as nearly as could be supposed under the different circumstances in which the experiments were made; the first table states the results of enquiries made in the wards of the Fever Hospital, with a view to ascertain the time of coagulation of the blood drawn in

various diseases, some of these diseases influenced probably by contagion. The latter, as appears from Mr. M'Namara's note, gives the time which the blood drawn from the extern patients, and kept in the dressing-room of the Meath Hospital, took to commence coagulation; this, in most instances, where buff appeared, was more rapid than in those where that kind of surface was not to be observed.

W. S.

DYNAMIC DROPSY.

The luminous and extended views on the nature and cure of dropsies, which have been published of late years, particularly by Dr. Blackall, Dr. Wells and Dr. Crampton, embrace such a number of cases of the various forms of that disease, which these able physicians treated successfully, and of illustrations by dissection, of such as were irremediable, that I may be considered too presuming in now entering on that subject. My apology however is, that though the object of research was the same, to establish sound and practical principles, and hence, correct and prompt decision in the treatment of Hydropic affections, yet encouraged by their examples to avoid the beaten track, by which each was enabled to collect many valuable facts,

which otherwise might have remained unobserved, I also have indulged a hope that, guided by the principles expressed in this work, and by noting the symptoms and treatment connected with the appearances of the blood in consecutive order, I might also contribute something to the general attainment of objects which are still desirable.

The cases which I here present occurred to me in my private practice, or were admitted into the wards of the Fever Hospital and the House of Recovery, Cork-street, under my care, in the course of the last three months of my attendance there. As facts faithfully related, the reader may judge how far they coincide with the principles expressed in this essay, or with the reasoning employed in the observations made on them.

The first case is extracted from the first volume of the Transactions of the Members of the College of Physicians, and given here, as it seems to me to illustrate the principles of Pathology, which guided my practice when that case was submitted to my treatment, and the same with those which I now, with increased experience, again venture to express.

CASES OF DYNAMIC DROPSY.

CASE I.

February 21, 1817, eleven o'clock, P. M.—Mr. T. W——, aged 28 years, married, of full habit; stature rather under the middle size; short neck, but with a roomy and well formed chest; very muscular; accustomed to active employment, but much exposed to the vapours arising from large quantities of melted lead, whilst superintending extensive lead works, of which he is a proprietor, and in the same way to rapid alternations of heat and cold.

About a fortnight ago he was attacked with a cough, hoarseness, and insuperable drowsiness towards evening, which he attributed to having caught cold. Was not confined to his room more than eight days: for the last eight months he has had an eruption (the lepra vulgaris), which extends over the entire of his right leg; and during the same length of time, he has been much disposed to nausea, cardialgia, and vomiting; and for some time past he bathed the affected leg daily in cold sea water.

At present, his respiration is quick and laborious; cannot lie in the horizontal posture with-

out exciting a sense of suffocation. Frequent hard cough; expectoration scanty and difficult; feels a sense of tightness rather than pain in the chest, and complains of debility and loss of rest. Anasarca prevails generally over the face, trunk and extremities; the legs are very much swelled, and retain the impression made by the finger; the leprous eruption on the leg is quite dry and scaly. This is the eighth day since the commencement of the hydropic symptoms; skin dry, and leucophlegmatic; pulse quick and small; urine scanty; bowels have been kept regularly free for the last three or four days by laxatives prescribed by Mr. Adams of Parliament-street; but neither these nor some hydrogogues which were employed, have prevented the progressive increase of the dropsy.

I directed a blister to be applied to the sternum; a bolus of calomel, gamboge and jalap to be immediately given, and a mixture with tincture of squills, and spiritus ætheris nitrosi, to be given every two hours through the night.

23d, Ten o'clock, A. M.—Passed a restless night; neither the orthopnæa nor the other hydropic symptoms have declined. The blister has risen well, and the bolus has operated freely, three or four times, attended with a more free discharge of urine than during the last seven or eight days; pulse fuller, some pain in the left side increased on inspiration; skin dry; tongue loaded. I now directed him to be bled from the

arm, and finding the pulse and breathing improve, the blood was allowed to flow to sixteen ounces, after which he felt much relieved, and some of the pillows being taken from his back he could approach more nearly to a recumbent posture. The blood became highly buffed shortly after it was drawn.

The discharge from the bowels was still promoted by an electuary of cream of tartar and jalap; James' Powder, combined with ipecacuanha, ordered to be given every eighth hour.

23d, Evening.—The difficulty of breathing and orthopnæa, which were much relieved after the bleeding, are now very urgent. Pulse full and quick; pain of side severe; electuary caused several watery stools, and urine increased. The venesection was repeated, and gave much relief, and the pulse continuing firm, twenty ounces of blood were then taken away, after which he was able to lie flat in the bed, and the sense of oppression was much diminished.

A sudorific mixture, with acetated water of ammonia, was directed for him for the night.

24th, ten o'clock, A. M.—Got a tolerably good night; breathing, however, still difficult and hurried, and the orthopnæa is in some measure returned. Pulse 90, and full; blood sizy, cough severe. Sixteen ounces of blood were then drawn from the arm, and I directed a draught with twenty drops of the tincture of digitalis, to be taken

every twelfth hour, together with a pill of two grains of ipecacuanha, and to use occasionally an expectorant mixture with syrup of squills, for the cough.

In the evening a return of the distressing symptoms rendered it necessary to take twelve ounces of blood from the arm.

25th.—Got a good night, sleeping on his left side, and the head and shoulders low; the cough is much easier; expectoration is more free; and respiration not more than twenty-five in the minute. Pulse 90, very full and firm, but with intermissions; does not feel his strength impaired; blood still sizy. Venesection was again employed, and ten ounces of blood were drawn; the draughts, with tincture of digitalis, the pills of ipecacuanha, and expectorant mixture, to be continued.

In the evening was much better in every respect: pulse 76, but with some intermission; anasarca much diminished; bowels open; urine free. Continue the draughts, with tincture of digitalis, the pills, and expectorant mixture.

26th.—Rested well: no return of a difficulty of breathing, and the dropsical swellings have entirely disappeared; is at present, however, much distressed by a violent palpitation and pain at the region of the heart; pulse so slow as 46, with intermissions at every third beat; bowels open, urine free.

The draughts with tincture of digitalis were

discontinued; and pills of assafœtida, with draughts of infusion of valerian, ammoniated tincture of valerian, and of tincture of castor, were directed to be taken every fourth hour; a blister to be applied over the region of the heart.

In a few days the irregular action of the heart was removed, and health rapidly returned under the use of occasional purgatives alternated with tonics, Iceland moss, and oil of juniper, which was directed on some anasarca re-appearing in the legs after the patient began to sit up. On the 20th of March, however, though he had been enabled for ten or twelve days to take exercise on horseback, and to transact his ordinary affairs, he began to complain of dimness of sight, and a sense of weight over the eyes; these organs, however, did not exhibit any apparent signs of disease.

Under an abstemious diet, the active employment of purgatives, the occasional use of errhines, a blister to the back of the neck, kept open by savine ointment, and by exposing the eyes to the vapour arising from æther, the affection of the sight seemed to be considerably relieved.

OBSERVATIONS.

The concurring occasional causes of the congestion and altered condition of the blood, so

remarkable in this case, claim some attention here.

The patient had been constitutionally predisposed to a full habit of body ; a predisposition which was confirmed by free indulgence of a keen appetite with generous diet.

The repulsion of the leprous eruption was speedily succeeded by that morbid plethora and altered condition of the blood, from the distressing effects of which, in slighter degrees, the patient had often before been relieved by a supervention or increase of a similar kind of cutaneous eruption.

The pernicious effects of the vapours arising from lead works (such as this patient was exposed to) on the respiratory organs are well known, and it was probably owing to the nature of that branch of trade which this merchant carried on, that his lungs appeared to be chiefly engaged at that period of his disorder, when the symptoms were most urgent ; for it may be fairly supposed that the state of his lungs rendered their vessels more susceptible of congestion, as well as less capable of performing their necessary functions in sanguification.

To this morbid alteration of the blood and plethora, the Hydropic effusion may also perhaps be fairly referred, the exhalent vessels being distended and forced with blood too dense to be

readily transmitted by them, or to be duly acted upon by the absorbents.

The palpitation and pain felt so acutely at the heart, even whilst its contractions were retarded by digitalis, can be best explained in the same way, and seem to illustrate the foregoing opinion, for irritation from distension or from the morbid qualities of the blood must have produced that pain which was unaccompanied by increased action in the part affected.

The sequel of this gentleman's case farther evinced his constitutional tendency to Plethora, as well as the stimulus which is given by bleeding to increase the quantity of fluid in the sanguiferous system, the apoplectic fits with which he was attacked requiring copious bleedings both from the temporal artery and the brachial veins for his relief.*

Although the necessity and advantage from bleeding in this case is, I think, fully apparent, yet the good effect from the other remedies employed would claim attention in this place, if it were not my design to bring them under consideration, when treating generally on the method of cure in similar cases.

This case, however, appears to me no less important in suggesting preventive than remedial

* See Transactions, &c. &c. &c. of the King's and Queen's College of Physicians, Ireland, vol. I. page 156-7-8 and 9, Dublin, 1817.

means: an early knowledge of the predisposing causes might have led to their being effectually opposed, and thus even the necessity of blood-letting (which should never be employed on light grounds) might be avoided.*

What these preventive measures should be, need not be farther noticed here, especially as the consideration of them will be resumed in the general method of cure.

CASE II.

Sarah Curran, a cotton spinner, 24 years of age, not married, admitted into the Fever Hospital, Cork-street, and placed in the wards under my care, September the 27th, 1822.

September the 28th, 11 o'clock, A. M.—About five days since was seized, after exposure to cold and damp, with pain in the right side extending from the hypochondrium across the chest, and with cough, hoarseness amd difficulty of breathing; symptoms, which were rapidly succeeded by general anasarca on the face, trunk, and both upper and lower extremities. At present the dropsical effusion is so great, that on the side of

* Vid. 1st and 2d cases in the Preface, and 2d case of complicated Dropsy and Purpura, which shew that bleeding hastens the tendency to plethora.

the face most dependant large watery tumours appear. There is also a considerable degree of ascites; had laboured under amænorrhœa for six months previous to this present indisposition, but did not complain until the 23d instant. ulse 100, *hard;* belly costive; urine scanty; much thirst; tongue white and loaded; skin dry.

Mittatur sanguis statim e brachio ad uncias decem; et sumat bolum ex Rhei granis xii. *et calomelanos granis tribus, et haustum oleosum succedente semihora. Habeat, misturæ expectorantis cum syrupo scilitico, uncias* xii.

Three o'clock, P. M. Report by Mr. Mc. Mahon of the Hospital, who was so kind as to visit this patient in the evenings. Blood highly buffed and yellow. Pain of chest and oppresed breathing relieved soon after the bleeding.

Seven o'clock, P. M.—Relief still continues, and the hoarseness is less. Bolus and draughts operated freely.

September 29th.—Report—rested well through the night. There is still, however, some pain in the right side and back. The anasarca is abated. The limbs, which are much less swelled, do not pit in the same degree on pressure. Considerable diminution of the ascites; the blood drawn yesterday is much buffed and slightly cupped on the surface; skin moist; tongue softer, and cleaning; pulse 86, and softer; thirst less; some

appetite; urine turbid, and more freely passed; four stools.

Prescribed. Repetatur VS. ad uncias octo. Sumat Pulveris antimonialis grana duo, quintâ quaque hora; repetatur mistura expectorans, omittentur alia. Diet. M.

September 30th, by Mr. Mc. Mahon, at 8 o'clock A. M. Got some quiet sleep; perspired freely, and feels herself much better; still, however, feels the pain of back and side.

11 o'clock, A. M. The pain of side and back impedes respiration in some degree; no soreness or enlargement of the liver; three stools; passed three pints of turbid urine since my last visit; expectorates freely; both cough and difficulty of breathing much less; pulse 86, rather harder than yesterday; skin soft and cool; tongue cleaning; appetite good. The dropsical swelling not materially diminished since yesterday; however much more elastic under pressure.

Applicentur hirudines decem statim lateri qua dolet. Postea fricetur abdomen optimè oleo camphorato. Repetatur frictio ter in die.

A flannel swathe to be put tightly round the waist.

Repetantur pulveres antimoniales et mistura expectorans ut antea.

One o'clock, P. M.—Leeches caused a plentiful flow of blood, but the pain is not yet entirely relieved.

October 1*st.*—Much better in every respect; dropsy almost totally removed; passed two quarts of well coloured urine since last visit; two scanty stools; pain of side continues; appetite keen.

Sumat statim pilulæ Hydrargyri grana sex, ex haustu oleoso. Applicetur vesicatorium lateri qua dolet; Repetentur pulveres antimoniales mistura et frictio ut heri, M. B.

October 2*d.*—Some urine has been evaporated by exposure to heat, affording a large proportion of gelatinous matter, which, on further evaporation, has left a substance of adipocerous colour and consistence.

Rested well; breathing easy; four stools; urine three pints; tongue clean; appetite good; no thirst; ascites not totally removed; the limbs restored to their natural size; and do not at all pit on pressure.

Repet. Remedia, sumat pulveris crystalorum Tartari drachmam et Pulveris zinziberis grana xv. *ter indies.*

October 3*d.*—The ascites diminishing; no return of the other dropsical symptoms; rests well; appetite good; five watery stools; urine one pint and a half.

Rep. Remedia.

October 4*th.*—Rests well, and feels better in every respect; very little fulness of abdomen; no remnant of any other dropsical symptoms;

appetite good; four watery stools; two quarts of urine were passed in the last twenty-four hours.

Rep. Remedia.

Transferred to the succeeding physician.

October 5th.—A very slight degree of dropsical affection remains, otherwise was free from complaint. My colleague Dr. Robinson, who succeeded me in attendance, prescribed on this day a pill, containing one grain of squills and one of calomel, to be taken twice a day; also a drachm of compound powder of jalap; and cream of tartar drink.

October 6th.—Continues to improve.

October 18th.—Dismissed, free from complaint.

OBSERVATIONS.

Whatever may have been the cause of the protracted amænorrhœa reported in this case, there can be no question that the congestive pyrexia, which preceded the dropsical effusion, was occasioned by it, and to this congestive fever farther excited by exposure to cold and damp, the succeeding dropsy may be referred.

The ratio symptomatum attempted in the former cases, applies equally to this; and to recur to it again would be but needless repetition. It may be remarked here, however, that this case affords an instance in which the hydropic diathesis was about to change from the dynamic to the adyna-

mic kind; for though on diminishing the congestion by bleeding and other evacuants, the symptoms were generally relieved, yet the dropsical tendency remained for some time afterwards, requiring alterative and stimulant medicines, aided by a more nourishing diet for its removal. This tendency in dropsies to pass from the dynamic to the adynamic form, and vice versâ, will be further observed in the succeeding cases.

It may be seen in the report of the evaporation of the urine passed in this case, that a considerable portion of animal substance was thus obtained; and from the external appearances of the urine which I have witnessed, I did suppose that the same experiment made in similar cases of dynamic dropsy would very generally afford similar results. In the Fever Hospital, however, where these cases came under my attendance, for obvious reasons, the discharges from the patients, by a standing order, are speedily removed, precluding the possibility of often repeating such a process with the urine; besides, I looked for more instruction from the appearances of the blood itself, than from those other fluids which themselves, as well as their qualities, are derived from the blood.*

* In the very full and satisfactory tabular view given on this subject by Dr. Crampton, it does not appear indeed that coagulation of the urine was as general as I would otherwise have supposed; but the result of his enquiries exhibited in

CASE III.

April the 7th, 1823.—Mary Ryan, a mendicant, age 20, was admitted into the Fever Hospital and House of Recovery in Cork-street, on the 2d inst. labouring under symptoms of congestive Pyrexia, which still continue; skin hot and dry, tongue loaded but soft, complains of headach and restlessness, pain and soreness in the right side; eyes slightly jaundiced. On examination the abdomen is found greatly enlarged, and distended with a fluid, fluctuation being distinctly perceptible; lower extremities anasarcous; has suffered slight indisposition occasionally from amænorrhœa which is of two years standing. Pulse 110 and hard, urine scanty and high coloured.

Prescribed.—Let 10 ounces of blood be taken from the arm, and let her take five grains of mercurial pill three times a day. Let the abdomen be rubbed with camphorated oil for twenty minutes, three times a day, and swathed with flannel.

April the 8th.—Twelve ounces of blood were taken from the arm in four minutes, and became solid in twelve minutes; it is now covered with a dark yellow and firm buffy coat, slightly cupped, the swelling and tension of the belly, as well as

that table, assisted to direct my attention more exclusively to those appearances of the blood which I have noticed.—See Transactions, &c. &c. vol. II. p. 272—1818, Dublin.

the pain and soreness of the side, are considerably diminished; she also feels much relieved from oppression, and had a good night's rest; urine three pints, depositing a copious brick coloured sediment. Pulse 80, and soft; four bilious stools.

Prescribed.—Let the pills and friction, as prescribed yesterday, be continued.

April the 9th.—The ascites has been totally removed, neither is there any remnant of infiltration of the lower extremities; rests well, has a good appetite, and is free from complaint; states that the temporary attacks of indisposition with which she has been affected since the amænorrhœa commenced, generally come on monthly.

Prescribed.—Let her have five grains of compound myrrh pill, and five of sulphat of iron, every second night, and the semicupium twice a week. M. B.

April 26th.—Dismissed cured, having enjoyed uninterrupted health since last report. The catamænia, however, had not returned.

OBSERVATIONS.

This case affords another example of dropsical effusion which appeared to depend directly upon sanguineous congestion, as well as on an altered condition of the blood, that congestion as well as the morbid state of the blood seemingly caused by the suppression of the catamænia.

The immediate and permanent relief obtained

by bleeding, evinced that vascular power was merely suspended, and that when the cause of the distension of the vessels was removed, they recovered their due caliber and healthy functions.

Although this is one of the simplest forms, perhaps, of dynamic dropsy arising from congestion, yet it was connected with marks of diseased action in the liver, which also demanded attention; these were the pain and soreness of the right side, the jaundice of the eyes, the loaded and brick coloured sediment in the urine, and the yellow colour of the buffy coat. For these symptoms mercury was employed, as I have deemed that remedy to be always advisable as an assistant to bleeding in dropsies, where the blood is much buffed, but especially where that buff is of a yellow colour. This consideration, however, will be again resumed, when treating on the cure of certain forms of the influenza, in which different viscera were often separately or jointly engaged.

As it would be tedious either to detail a greater number of such cases of congestive dropsy as must be familiar to every physician of experience, or to repeat similar observations on them, I shall proceed to the histories of cases which were more properly of the adynamic kind.

ADYNAMIC DROPSY.

The epithet employed here to designate the following cases of dropsy, is derived from their leading and essential characteristic, namely, debility, as it regards the loss both of constitutional vigour in the animal economy in general, and of power in the vascular system in particular. By it I mean to express a state of disease opposite to that observed in the preceding cases; but, as may be seen by examining the cases presented under either denomination, the line of demarcation will be found frequently broken in upon, the irruptions being often mutual, so that the diseased symptoms sometimes actually change conditions. However, even in this irregular course some important advantages may arise from having the primitive characteristics of the disease kept in the recollection of the observer by some prominent designation.

CASE I.

April 6th, 1823.—Margaret Reilly, widow, 32 years of age (a mendicant), admitted into the hospital in Cork-street on the 24th of March, labouring under dysentery and ascites, the former of which is now somewhat abated, but the latter greatly increased, so that the abdomen is distended and enlarged, sore to the touch, and the fluctuation of

the fluid it contains is perceptible in every part of it. The skin is dry, and of a pale olive colour,* the extremities emaciated, the eyes heavy and slightly jaundiced; pain of right side impedes a full inspiration. The stools are still frequent, but scanty, with severe tenesmus. Pulse 110 and hard, tongue brown; no appetite; rest disturbed; complains much of weakness. The dropsy commenced about three months ago. States that she was delivered of a still-born child, the only one she ever brought forth, almost nine years ago, that the catamenia have not appeared during the last five years, and that she has always suffered severely from poverty, bad diet, cold and nakedness.

Prescribed.—Let eight ounces of blood be taken from the arm, let her have a draught with castor oil, and twenty drops of tincture of opium immediately; and let her have ten drops of tincture of digitalis three times a day. Let the belly be rubbed with camphorated oil, and swathed with flannel. L. wine four ounces.

April 7th.—Felt immediate relief from the bleeding; eight ounces of blood were drawn in three minutes, and it became solid in fifteen mi-

* This is the nearest description which I can give of that more than sallow colour of the skin, which characterizes the dropsy of debility so often to be met with amongst the poor of Dublin.

nutes, but the coagulation is not yet firm, though the blood was drawn twenty-four hours since, neither is the blood buffed, but its surface is of a bluish hue and very serous. The tension and pain of belly, and the ascites are much abated; skin soft and better coloured; urine three pints, and straw coloured without sediment; tongue cleaner than yesterday, feels keen appetite, slept well last night; four stools, with less tenesmus.

Prescribed.—Let the remedies as directed yesterday be repeated, omitting venesection. M. B. Wine four ounces.

April the 8th.—The ascites still less than yesterday, but feels acute pain at the region of the heart. Pulse 100, and hard; five stools; appetite good; tongue clean; urine three pints and turbid.

Prescribed.—Let the bleeding be again employed to eight ounces, and a blister be applied to the right hypochondrium. Seven grains of Dover's powder every sixth hour. M. Wine four ounces.

April the 9th.—Feeling relief from the bleeding, the blood was allowed to flow slowly until nine ounces were taken. It is not yet, though twenty-four hours have passed, firmly coagulated; the surface, however, is interspersed with small round patches of yellow frothy buff; has had no return of pain since the bleeding. The ascites is farther diminished, and she has passed three quarts

of dark brown urine without sediment; expresses a feeling of severe pain from the blister, which has risen well, and caused a copious yellow serous discharge; feels her strength improving. Pulse 100, soft but firm; tongue clean; appetite good; four stools with less tenesmus.

Prescribed.—Let her have eight grains of Dover's powder three times a day, and twelve drops of tincture of digitalis twice a day. M. B. Wine six ounces.

April 10th.—The ascites is somewhat increased since yesterday, though three pints of urine have been passed, not of so dark a colour; skin and eyes slightly jaundiced; pulse 100 and full; appetite keen; complains much of pain and soreness on the blistered part; four nearly natural stools.

℞ *Pilulæ hydrargyri grana* xxii. *Opii puri grana tria; Pulveris fol. digitalis grana* v. *Gelatinis saponis quantum sufficit fiat massa, divide in pilulas granorum quinque, et signa sumat unam 8va. q. q. hora.*

Repet. frictio oleo camphorato, et habeat potum acidum vegetabilem ad libitum. M. B. Wine six ounces.

April 11th.—No report. Remedies continued.

April 12th.—Colour of skin and complexion are returning; urine plentiful, and of a natural colour. The only pain she feels is from the blistered part, which is still discharging freely. Tongue clean; pulse natural; two natural stools.

Prescribed.—Let the pills and imperial drink be continued. M. B.

April 13*th.*—Had a restless night, and complains of severe pain of abdomen; stools dysenteric, with tenesmus. No return of dropsical symptoms.

Prescribed.—Let her have a draught with castor oil, and twenty drops of tincture of opium. M.

April 14*th.*—Complains of nausea and sense of oppression at her stomach; dysentery again severe, but no return of dropsy.

Prescribed.—An emetic draught, and in two hours afterwards five grains of mercurial pill, with a draught containing three drachms of castor oil, and twenty drops of tincture of opium. Let the friction of the abdomen with camphorated oil be repeated. M.

April 15*th.*—Oppression and sickness of stomach relieved, but complains of pain at the right hypochondrium, extending to the umbilicus; dysenteric diarrhœa frequent, with tenesmus.

Prescribed.—Let the mercurial pills and anodyne oily draught he repeated. M.

April 16*th.*—The dysentery is somewhat relieved, but she has passed much purulent and bloody matter with the fæces; appetite good; no return of dropsical swelling; strength improved.

Prescribed.—Let her have a drachm of balsam of copaiba with mucilage of Gum Arabic three

times a day, and a pill of four grains and a half of mercurial pill and half a grain of powder of digitalis every night and morning. M. B. Wine four ounces.

Her health afterwards improved daily under the use of these remedies for the ensuing six days, the mercury having been continued till the mouth was slightly affected by it. On the 22d, however, she complained of vertigo, which was speedily relieved by shaving the head, washing it with camphorated spirit of wine, and by a flannel cap. A flannel waistcoat was also prescribed.

On the 24th of April, being free from dropsical or dysenteric symptoms, and enjoying good rest and appetite, she was sent to the convalescent wards. This state of health, however, was again interrupted during the night of the 27th; and the following is the report of the succeeding day:—

April 28th.—Complains of loss of rest and of appetite, and of severe pain throughout the abdomen, which on examination is found tense, sore and enlarged, with fluctuation to be generally felt all over it. Stools are frequent and scanty, with some tenesmus; urine scanty; skin hot and dry; tongue white, but soft; complexion and colour of skin nearly natural.

Prescribed.—Venesection to nine ounces; pills, each composed of three grains of mercurial pill, half a grain of powdered leaves of digitalis, and a

grain and a half of antimonial powder, one to be taken every fourth hour; a draught with half an ounce of castor oil and ten drops of tincture of opium to be given immediately.

Let the abdomen be rubbed with camphorated oil for twenty minutes twice a day, L. Wine three ounces.

April 29th.—Felt much relief from the bleeding, and rested well through the night; feels very little pain or soreness in the abdomen to-day. The ascites, however, appears rather increased. Eight ounces of blood were taken from the arm, which is not buffed, but the coagulum is of a brighter red colour than is generally observable with venous blood. Pulse ninety, full and firm; urine scanty; four stools, loose, but natural, and without tenesmus; tongue clean and soft.

Prescribed.—Let pills, the same as last prescribed, be repeated, and let her have twelve drops of tincture of digitalis every sixth hour.

April 30.—Is better to-day in every respect; scarce any remnant of ascites; urine two quarts; thirst moderate; rests well; four bilious stools.

Prescribed.—Let her take three grains of the sulphate of iron, and five grains of carbonate of soda, three times a day; the remedies in use to be still continued. M. B. Wine four ounces.

May 1.—Complains of cough, but is better in every other respect.

Prescribed.—Cough mixture ten ounces; con-

tinue the other medicines. M. B. Wine seven ounces.

May 2.—Had severe pain in the belly through the night, succeeded by bilious purging. Seven loose stools; the abdomen is much swelled to-day, but is quite elastic under pressure, as if the cavity was distended with gas alone. Pulse ninety; skin hot and good colour.

Prescribed.—An oil draught with fifteen drops of tincture of opium; an emollient enema; expectorant mixture. Wine ten ounces.

May 3.—Continues to recover. Let her remedies be repeated. M. B. Wine four ounces.

May 4.—Feels better in every respect. Repeat the remedies. T. Wine four ounces.

May 5.—No return of dropsy, or any other complaint; strength improving. Repeat the remedies. M. B. Wine four ounces.

May 6.—Free from complaint, and desires to be dismissed.

May 10.—Dismissed cured.

OBSERVATIONS.

In this case of Adynamic Dropsy, the congestion which led to hydropic effusion was produced by two kinds of causes, first, those long applied in debilitating the vascular system;—and secondly,

suppression of the various secretions, by which certain portions of the circulating mass (whilst vascular power continued) were carried out of the system.

All the causes, too, most likely to excite a morbid condition of the blood, were found to precede the train of diseased actions which presented themselves,—such as bad diet unequally supplied, sometimes enough to satiate a greedy appetite, at other times but scantily doled out. Hence the blood became adulterated at its very sources of supply. Again, cold and neglect, by checking the due secretions caused a remora of those parts of the blood which in health are separated from it; and lastly, the enlargement and disorganization of the liver, whether it was antecedent or consequent to the morbid condition of the blood, must have contributed largely to continue or increase that morbid state.

That pale olive colour of the skin which accompanied this case, and which so remarkably characterizes those dropsies of debility, which are to be met with amongst our poor, as well the jaundice of dropsies, is very generally found connected with diseased liver, and appears to me to arise from want either of due separation, or of complete union of the hydrocarbonous principles of the venous blood, which should take place in its passage thorough the liver. For the vessels of that organ, naturally tardy in their action, may

be well supposed to be readily influenced by the debility which in such cases pervades the vascular system in general.

This case appears to me instructive not only as indicating the *ratio symptomatum*, but as exhibiting an exquisite example of Adynamic dropsy changing its nature, under circumstances which, according to very generally received opinions, that might be least expected to happen ; for though combined with dysentery in general, a debilitating disease, yet it assumed such a character as to be relieved only by repeated blood-letting.

As the question of the propriety of drawing blood under any circumstances in dropsies of long standing, or in those arising either from constitutional debility or disorganization, appears to me to be one of paramount importance in practice, I have selected several cases, with a view to this interesting part of the subject, and beg to direct some attention to the illustration of it afforded by this and the succeeding cases.

In this instance several causes contributed to remove the inaction of the vessels, and perhaps to change the morbid condition of the blood. Such were the stimulus given by the supervening dysentery ; the relief of local congestion by the sanguineous discharges from the intestines ; the stimulating and invigorating remedies that were employed for the cure of dysentery, aided by the care, warmth and wholesome diet of the Hospital ;

and lastly, the season of the year; for I am persuaded, that in spring there is generally increased vigour in the animal economy more than at other periods, and worthy to be noticed, when considering the propriety of taking blood in adynamic dropsies.

But whatever may have led to increased action of the vessels, and that painful oppression which indicated bleeding, there could be no doubt of the relief obtained on each occasion in which that remedy was employed; nor of the decided aid it gave to the other remedies prescribed for the removal of the dropsy.

The livid colour of the blood drawn, similar to what may be often witnessed in dropsies of long standing, generally arises, I believe, from diseased organization. In this instance the liver and biliary system were manifestly engaged, as were also probably the coats of the intestines; and on this account, although the dropsy and accompanying inflammatory symptoms had been removed by the successive bleedings, yet my hopes of success in preventing a return of them rested on being able to remedy the organic affection, by the means employed for that purpose.

The change effected in the colour of the blood during the period that lapsed between the second and third bleeding, appears to me to be also well worthy of attentive notice, as it shewed how mercury, aided, perhaps, by the other remedies

in use, seemed to act either directly on the diseased mass of blood itself, or by altering the condition of the organs concerned in producing that diseased state.

The consideration of giving wine in such cases at the same time when bleeding is prescribed, though coming more properly under the head of general treatment, yet it may be allowed here so far as to observe that bleeding appears to me to be always most beneficial in adynamic dropsy, when succeeded by increased vascular action. But as if, in this increased action, the power of the exhalent vessels predominated over that of the absorbents for a short time, the dropsical swellings themselves for a while undergo a temporary increase; these powers, however, soon become mutually adjusted, or rather that of the absorbents gains the ascendancy under the stimulus from the altered fluids.

I am the more anxious to direct the attention of medical observers to this temporary inequality in the action of the exhalent and absorbent vessels, and the transient increase of hydropic effusion which is the consequence of it, inasmuch as it appears to me of the utmost importance in making a correct decision on the propriety of bleeding in such cases: and perhaps it has been chiefly owing to want of due attention to these very circumstances that this remedy, efficacious if cautiously administered, has been for some time deemed so incom-

patible with the safety of persons labouring under confirmed dropsies.

Fatal metastasis, or sudden death, might, I suppose, be the consequence of venesection in dropsy, especially on the blood being quickly or copiously taken, if vascular power should not be previously restored, and evinced by pain or excited pulse; or if the operation be so performed when the dropsical effusion was already to such an extent in any cavity containing a vital organ, as to threaten the function of that organ, so that such a momentary increase of the effusion produced in the manner above related, might cause the total extinction of that function.

The precautions, however, which I deem necessary in drawing blood in certain cases of adynamic dropsy, will be more fully detailed under the head of curative treatment.

CASE II.

Mary Horish, a washerwoman, aged 66 years, admitted into the Fever Hospital, Cork-street, April the 17th, 1823.

April the 18th.—Report. Dropsy prevails over every visible part of her face, trunk, and extremities; and pressure with the finger any where on the surface, even over the sternum or fore-

head, produces deep pittings. The fluid, however, is most accumulated at the right side, on which she lies constantly. The skin is cold, dry, and of a pale olive colour. The abdomen is greatly enlarged, with distinct fluctuation throughout every part of it. The right hypochondrium is tense and sore to the touch, and an enlargement of the liver can be distinctly perceived through the anasarcous integuments. The patient complains much of pain in the right side, accompanied with præcordial oppression. She is extremely feeble, and cannot even move her limbs, nor bear to be turned on the left side.

The dropsy commenced about three weeks ago, soon after her dismission from this hospital, on her recovery from fever. The dyspnœa and cough, which commenced with the dropsy, are now very distressing; the voice is weak and hoarse; pulse 120, so feeble as scarcely to be felt through the thickened integuments; urine scanty; stools frequent, with some tenesmus.

Prescribed.—Let the abdomen be stuped, rubbed with camphorated oil, and swathed with flannel, and let her have additional covering of blankets. Let a large blister be applied to the right hypochondrium. Let her have a draught with castor oil and twenty drops of tincture of opium; seven grains of Dover's powder, and three of James's powder every fifth hour, and a mixture

for her cough, with Lac Ammoniacum, Syrup of squills and æther. L. Wine 6 oz.

April 19*th.* Blister has risen well, and has given some relief to the breathing; four stools.

Prescribed.—℞. *Pil. Hydrargyri, gr.* xxx. *Opii gr. tria. Pulv. antimonialis, gr.* vii. *Gelat saponis, q. s. fiat. massa. Divide in pil. g.* v. *Sumat unam. 5ta. q. q. hora.*

Rep. Mist. expectorans et frictio.

April 20*th.* Ascites and general anasarca much decreased; urine still scanty, depositing much white sediment; two dark griping stools; pulse more distinct and stronger.

Prescribed.—A draught with castor oil and tincture of opium. Continue the pills, friction and expectorant mixture, as last prescribed. M. Wine 6 oz.

April 20*th.* Is better to-day in every respect, except that the urine is still scanty; pulse 86, and firm.

Continue the remedies.

April 21*st.* The right hip on which she lies is stripped of its cuticle, and is very dark coloured and sore; urine more free, but still scanty; one dark stool.

Let the remedies be continued, and let the affected part of the hip be moistened with camphorated spirit of wine, and afterwards covered with turpentine and adhesive plaster. M. Wine 4 oz.

April 26th. The same remedies as prescribed on the 21st inst. have been continued since; the dropsical swellings have decreased in every part, but there is still considerable pitting on pressure on the upper part of the sternum and on the extremities. Breathing difficult, with some pain and tightnes across the chest; three stools; urine scanty; pulse 90 and firm. Gangrened appearance of hip not improved.

Prescribed.—Let the mercurial pills and the friction be continued, and let her take three grains of antimonial powder every six hours. Let her have vegetable acid drink. M. Wine 4 oz.

April 27th. Urgent dyspnœa, with pain and tightness across the chest; her strength, sleep and appetite, however, are much improved, and the dropsy is less; state of the affected hip little changed; tongue cleaner; thirst considerable; urine one pint; pulse 90, full and firm; she has frequent rigors; one stool; can now lie on the left side.

I now directed 9 oz. of blood to be taken from the arm; and feeling her pulse whilst the blood was flowing, I found it to improve in softness, though quickened, and she expressed much relief in her breathing.

Let the remedies be continued. M. Wine 3 oz.

April 28th. Feels better in every respect; the dropsical swellings decrease; four stools; urine a little more free and paler; appetite good; pulse

eighty-six, and firm. The blood drawn yesterday is firmly coagulated, and not at all buffed; the hip is much better.

Prescribed.—Let the mercurial pills and antimonial powders be continued, and let her take a drachm of the syrup of squills with each pill; cough mixture ten ounces. M. B. Wine six ounces.

April 29.—Continues to recover. Prescribed.—Omit bleeding, but let the other remedies be continued. M. B. Wine four ounces.

April 30.—Rests well; eats heartily, and is able to get up and move about with considerable activity. No pitting of the extremities on pressure; pulse seventy, and firm; one natural stool; urine one pint; complains of flatulence.

Let the remedies be continued; and let her immediately take a bolus of three grains of calomel, eight grains of rhubarb and six grains of ginger; and soon afterwards a draught with castor oil. M. B. Wine four ounces.

May 1.—Five free stools, with some increase of urine; free from any complaint except stiffness of the joints lately occupied by dropsy.

Prescribed.—A warm bath with a flesh brush. Continue the remedies, except the bolus. M. B. Wine four ounces.

May 2.—Would not use the bath; three scanty bilious stools; otherwise no change.

Prescribed.—The pills and syrup of squills to be

continued; omit the other medicines. Let her take five grains of sulphate of iron three times a day. M. B. Wine four ounces.

May 3.—The mouth has become sore, accompanied with slight ptyalism, and mercurial halitus on the breath; feels better in every other respect.

Prescribed.—Omit the mercurial pills; repeat the other remedies. M. B. Wine four ounces.

May 4.—Continues to recover; mouth is still sorer to-day.

Repeat the powders as prescribed yesterday. M. B. Wine four ounces.

May 5.—Continues to recover; is cheerful and free from complaint, but urine still scanty; colour of skin much improved; mouth still sore.

Continue the remedies. M. B. Wine three ounces.

May 6.—Complains of soreness and scalding at the *labia pudendi* and parts adjacent, which seem to be produced by the urine, latterly passing involuntarily and frequently, otherwise free from complaint; three scanty stools; quantity of urine increased.

Prescribed.—The semicupium for ten minutes, and the parts affected to be protected with camphorated oil and clean linen; an oil draught. M. B. Wine two ounces.

May 7.—Skin still dry and hard on the lower extremities, which gives her much uneasiness,

but otherwise feels better, and no return of dropsy. Five stools from the oil draught; mouth still sore.

Prescribed.—Three grains of antimonial powder, and six grains of Dover's Powder, to be repeated every sixth hour; and let the hardened integuments be rubbed with camphorated oil. M. B. Wine two ounces.

OBSERVATIONS.

In this instance dropsy appeared to a very great extent in a confirmed form, connected with an enlarged liver and a constitution broken down by age, poverty, cold and fatigue.

On the patient's admission into the hospital her vital power and animal warmth were almost entirely suspended; the circulation of the blood was very feebly carried on; the respiration was much impeded, and the skin cold and dry, was discoloured and distended with dropsical effusion underneath.

The relief obtained from a condition so desperate may, I think, be attributed in part to each of the remedies used; and I am persuaded that none of them should be alone relied on in any similar instance; for warmth, wine and friction appeared useful in restoring vital power in gene-

ral, whilst mercury, and especially the blister to the hypochondrium, seemed to restore due action to the liver, on the interruption of which so many of the symptoms obviously depended.

This case too, like the preceding one, is instructive in shewing how an opposite state to that of extreme debility may supervene even in confirmed dropsy, such as to allow of bleeding being beneficially employed; for not only the urgent symptoms, on account of which that remedy was prescribed, were effectually relieved, but by it the efficacy of the means in use for the removal of the dropsy was manifestly promoted.

It appears to me very deserving of attention in this case, that the dropsical swellings, the olive colour of the skin, and the enlargment of the liver, disappeared without any corresponding increase in the secretion of urine, which on the contrary has not yet been restored in quantity to what is usually passed in health.

The first favourable change of symptoms, however, was attended with increase of the bilious discharges from the intestines; and this proof of the restored action of the liver accompanied every subsequent stage of amendment. By comparing these circumstances together it would appear how different kinds of dropsies may be relieved by increased action, either in the renal or hepatic system; the state of the blood not only determining to either set of organs, but also influencing

the quality of the excretion, by which the accumulation of the fluids in dropsies is relieved; the liver separating the denser parts of the venous blood, which are carried to it from the greater circulation, and the kidnies transmitting the aqueous parts of that conveyed directly by the arteries from the lacteal, lymphatic, and pulmonary systems.

The next succeeding case being directly the converse in all its leading features of that which led to the foregoing remarks, will be found, by contrast, to give further illustration of them.

The speedy relief of the gangrenous affection of the hip which followed the bleeding, is worthy of notice, and leads to a very important practical question:—How far it might be advisable, under certain circumstances, to attempt by the same means the relief of that distressing train of symptoms which every physician must have frequently witnessed, when gangrene supervenes on the bursting of swelled legs in dropsy, which, when it does happen, causes the most painful suffering during the last moments of the patient's sensibility, and poignant affliction to them who often unavailingly try to remedy it;—a question which will be found further illustrated by the cases of adynamic purpura, intended to be detailed in the succeeding pages.

The similarity, in some other very striking particulars between Dropsy and Purpura, when both

arise from states of debility, will there also more fully appear.

When the advanced age of this patient, her broken down constitution, and manifest organic derangement in the hepatic system are taken into account, it is scarcely necessary to add, that a prognosis, which would embrace the dangers of relapse, must be very unfavourable indeed ; so far, however, recovery has exceeded my expectation, and I have therefore derived more confidence in the means employed.

CASE III.

Anne Haslett, aged 36, admitted into the Hospital *April the* 17*th*, 1823, a servant, fourteen years married, had six children, but none within the last four years, during which time the catamenia have been irregular, and have not appeared at all during the last eight months. At the commencement of the last period, she felt as if there was a a rupture near the umbilicus of a tumour, which had been forming there for some months previously, and immediately after that sensation, there was a glary discharge from her rectum, resembling rancid oil. She has had a similar discharge at several times since.

April 18*th*. Report. The abdomen is greatly

enlarged, the integuments on it being distended with a fluid which is felt to fluctuate in every part. Lower extremities anasarcous. On pressing the hand over the abdomen, a solid tumour is to be felt extending over the whole of that cavity from the right ilium (where the patient states that it commenced) to the epigastrium; the distended integuments are sore to the touch, and she complains of deep-seated pain in the abdomen, and of pain and palpitation of the heart. Breathing hurried by the pain of the heart. Pulse 100, hard, intermitting at every third beat; limbs much emaciated. Skin slightly jaundiced, but soft; face flushed; bowels freed by a purgative pill administered since admission; tongue loaded, and a bitter taste; cough frequent. The tumour began eight months ago, but the dropsy is but of one month's standing; urine free and pale.

Prescribed.—Venesection to 9 oz.; a blister to be applied to the right hypochondrium; five grains of mercurial pill to be immediately taken, with a draught, containing three drachms of castor oil; the abdomen to be rubbed with camphorated oil 15 minutes twice a day, and swathed with flannel.

April 19*th*. Felt immediate and very general relief of all her symptoms soon after she was bled. The blood is buffed; the buff white and frothy. The relief still continues; the size of the abdomen is greatly reduced, and the tumour underneath can be more distinctly traced to an en-

largement of the right ovarium; there has been a copious discharge of urine, straw-coloured and depositing much whitish sediment; rested well last night; thirst less; appetite keen; pulse 86, and regular; blister has risen well.

Prescribed.—A pill of four grains of blue pill and one of antimonial powder every fourth hour, and the friction of the abdomen to be repeated. M. B. Wine 4 oz.

April 20th. No report; continue the medicines. M. B. Wine 4 oz.

April 21st. The ascites totally removed. Urine light straw-coloured; six quarts passed the last 24 hours. The superior margin of the tumour has descended from the epigastrium below the umbilicus; is much distressed with globus hystericus and palpitation of the heart, symptoms which she says she has laboured under since she felt the rupture internally. Two stools; appetite keen; pain at heart severe; pulse 100, and regular.

Prescribed.—Let her food be given her by small portions at a time. M. B. Wine four ounces. Let her have four grains of blue pill, and twelve drops of tincture of digitalis, three times a day.

April 22d.—The tumour continues to decrease; urine very copious; no return of ascites, but feels severe pain and soreness to the right of the umbilicus; the globus hystericus distressing; thirst urgent; appetite keen; pulse 76, irregular;

palpitation at heart distressing. Seven quarts of pale urine passed since last report.

Prescribed.—Let ten leeches be applied to the pained part of the abdomen; let the other remedies be repeated as yesterday.

April 23d.—Better to-day in every respect; urine very copious; three costive stools.

Prescribed.—Let her have a draught with castor oil immediately; remedies and diet to be continued as yesterday.

April 24th.—The tumour still diminishing, otherwise no change since last report. Continue the pills and drops. M. B.

April 25th.—No report. Continue the remedies.

April the 26th.—On pressing on the tumour in the abdomen, the patient experiences severe pain and sense of oppression under the lower part of the sternum, and at the epigastrium. Thirst urgent; appetite keen; passes seven quarts of pale urine in every twenty-four hours; four bilious stools; mouth a little sore; pulse 60.

Prescribed.—Let the pills, drops, and friction, be continued. M. B.

April the 27th.—Urine nine quarts; two bilious stools. Continue the remedies. M. B.

April the 28th.—Urine pale; nine quarts passed; thirst urgent; slight soreness of the mouth continues; the diseased ovarium is farther contracted in size; one scanty stool; rest and appe-

tite good; strength improving; the parietes of the abdomen are supported by the tumour, and there is no longer any fluctuation or appearance of fluid to be perceived in that cavity, neither is there any infiltration remaining in the lower extremities.

April the 29th.—Strength improving; no return of dropsy; passed eight quarts of straw coloured urine since last report; four natural stools; the swelling of the ovarium is now entirely confined to the right ilium.

Prescribed.—Let the remedies be continued, and let her have a flannel waistcoat.

April the 30th.—Since last report has passed eight quarts of pale urine; complains of pain under the sternum; three dark stools.

Prescribed.—Let the mercurial pills and tincture of digitalis be continued; and let her take three grains of assafœtida three times a day. M. B. Wine eight ounces.

Continue the remedies; the patient improved progresively in strength until the 3d of May, notwithstanding that she passed nine quarts of pale urine in every twenty-four hours.

May 3d.—Report. Complains of severe pain extending from the epigastrium over all the left side of the thorax, impeding respiration, and exciting violent palpitation of the heart. Pulse 100, and hard; face flushed; tongue white; thirst ur-

gent; ten quarts of pale urine since the same hour yesterday; two dark stools.

Prescribed.—Venesection to eight ounces, and a repetition of the mercurial pills and tincture of digitalis. M. Wine six ounces.

May 4th.—Was greatly and speedily relieved by the bleeding. The blood is coagulated; the surface of it covered with red air bubbles, under which there is a very thick buffy coat, very white, but not cupped. The relief felt after the bleeding still continues.

Prescribed.—Let the remedies (bleeding excepted) be repeated.

May 5th.—The mouth is slightly affected by the mercury; otherwise as yesterday. Urine eight quarts; bowels open.

Prescribed.—Omit the pills. Repeat the tincture of digitalis. M. B. Wine four ounces.

May 6th.—Was by an accident deprived of her usual quantity of whey, and complains much of thirst; has passed but four quarts of urine in the last twenty-four hours, which is less than half the quantity in the same length of time for nearly a fortnight. No stool since last visit; the diseased ovary is reduced entirely within the superior verge of the pelvis; no return of ascites.

Prescribed.—Let her drink be measured to her, and given as sparingly as the urgency of her thirst will suffer. Let her have a castor oil draught, and the tincture of digitalis be repeated

and let her diet consist of animal food, as far as the regulations of the hospital will allow. Wine four ounces.

May 7th.—Has thrown up some spits tinged with blood. Pulse 96 and hard; three stools; her thirst was so urgent that the nurse could not resist her intreaty, and allowed her to drink whey freely. Urine passed in the last twenty-four hours nine quarts and a half.

Prescribed.—Let her be restrained in drinking, and let her have her meat in divided portions. Continue the tincture of digitalis. M. B. Wine four ounces.

May 8th.—Has taken four quarts of whey, one quart of new milk, and one quart of broth, in the last twenty-four hours; and she has passed nine quarts of urine.

Prescribed.—Eight grains of compound powder of ipecacuan every eight hours; and the tincture of digitalis to be repeated. M. B. Wine our ounces.

May 9th.—Has taken but two quarts of whey and one quart of milk since yesterday, and has passed but three quarts and a pint of urine; thinks the powders have been of use to her, and caused her to sleep well, and perspire freely in the night. Bowels costive; appetite good.

This case having now assumed the form of diabetes, an appropriate treatment will be pursued.

OBSERVATIONS.

The variety of diseased actions observed in the preceding case, and the extraordinary revolutions in the nature of these diseased actions which took place, must render an attempt to give the *ratio symptomatum* extremely difficult. This difficulty, however, may be somewhat obviated, by pursuing the course I have already adopted in other cases, in stating the symptoms in consecutive order.

Suppression of the catamenia marked the beginning of derangement in the uterine system, and the progressive enlargement of the ovarium indicated the constant increase of that derangement; then succeeded, apparently connected with the former symptoms, those of emaciation, general debility, morbid nervous sensibility, *globus hystericus*, pale urine, and palpitation of the heart. The prognosis of a perfect cure of such a train of symptoms, derived manifestly from a cause very generally irremediable, must be always unfavourable.

The symptoms of acute disease, which were comparatively of recent origin, were to be considered differently from the foregoing, and the pain, hurried and hard pulse, the quickened and oppressed respiration, hot skin, the soreness and tension of the abdomen, together with the ascites, were all produced, as I conceive, by the mechanical pressure of the diseased ovarium, which was so enlarged as to compress all the abdominal viscera, and by preventing the descent of the dia-

phragm, impeded the due action of the lungs and of the heart itself.

For this last train of symptoms blood-letting offered the most promising remedy, and was therefore employed, though not without apprehension that the nervous and chronic complaints might be rather injured than benefited by it. These apprehensions, however, were proved groundless by the result, as the means employed with a view to remedy the chronic disease were found rather promoted than retarded.

At present it is obvious that the return of dropsy is prevented by the supervention of another disease, no less obstinate in cure or less rapid in advance to fatal termination ; and the prognosis must be still further unfavourable, inasmuch as the origin of the diabetes, as well as of the dropsy, probably is, in part, referable to the diseased ovarium, which has been found so very rarely curable.

This case appears to me to be also interesting, when placed in contrast with the preceding one, in respect to the manner in which the dropsical effusion was removed, and seems further to illustrate the nature of different kinds of dropsy : here, for example, the diabetic overflow of fluid was evidently derived from the lymphatic and lacteal systems, carried directly from them through the minor circulation. But in the former case, as was noticed in the observations on it, by unloading the

blood of its denser parts, through the medium of the biliary system, this kind of dropsy was removed.

CASE IV.

April the 5th. Elizabeth Lake, aged 24, a mendicant, admitted into the Fever Hospital, Cork-street, on the 14th of March, then labouring under obstinate dysentery. See notes of this case, and of the means employed by Dr. Grattan, who previously attended the wards, which on my return to the Hospital, on the 5th of April, were placed under my care.*

* First visit, *March 15th.* Symptoms of severe and confirmed dysentery. An oil draught had been given on admission, which operated freely.—Prescribed two grains of the sugar of lead, and half a grain of opium, three times a day. These pills were continued for three days, with Dover's powder at night.

Report on *March 18th.* Dysenteric symptoms still obstinate, and stools frequent.

Prescribed.—Let a scruple of the sulphate of zinc be dissolved in 4 oz. of water, and add 30 drops of tinct. of opium to the solution; a table spoonful to be taken four times a day. Let the abdomen be stuped and afterwards swathed with flannel, and let 8 grains of Dover's powder be given at night.

6th and 7th visits. Remedies continued; rice and milk for diet.

Report of the 5th of April. Complains of general oppression, pain of back, and of tenesmus, and in consequence of these of loss of rest. The integuments on her face, arms, lower extremities, and abdomen, are all distended with dropsy, so that the eyes are quite closed, the fluid accumulating most on the side on which she lies. There is distinct fluctuation in the abdomen, which is also painful, enlarged, and extremely sore to the touch. The dropsy appeared as soon as the dysentery was checked. Thirst urgent; tongue

8th visit. Chalk mixture, with tincture of opium. Oil draught prescribed.

9th visit. Symptoms not improved.

Prescribed.—Let the medicines she has been taking be suspended, and a drachm of a solution of the arseniate of potash* be given three times a day. Each night eight grains of Dover's powder. These remedies were continued to the 1st of April.

April 2d.—In the course of the last week the dysenteric symptoms were greatly alleviated. The stools were much less frequent, and passed without pain, the arsenic appearing to have exerted on the abraded and ulcerated surface of the intestines, that property which it so remarkably possesses of diminishing morbid sensibility when applied externally, as in cancerous ulcers. A new train of symptoms, however, now succeeded, the extremities, within the course of the last few days, had become œdematous, and the patient was evidently dropsical.

Prescribed.—One grain of the powder o digitalis, five of

* This solution of the arseniate of potash was made by dissolving two grains of the arseniate in four ounces of mint water, and one ounce of weak spirits of wine.

white, urine scanty and pale; pulse 100 and hard. Complains of palpitation and pain at heart, and of extreme debility.

She states also that she has been subject to piles, and has suffered much pain and interruption of her health from them; that during the last twelve months she has had frequent sanguineous and purulent discharges from them, and that they commenced soon after she had recovered from a dangerous and protracted fever in the Hardwick Hospital.

Prescribed.—Venesection to eight ounces, and a draught with castor oil and twenty drops of tincture of opium. L. B. Wine four ounces.

April 6th.—Felt almost instant relief from the bleeding. Though eight ounces of blood were nearly ten minutes in flowing it coagulated in fifteen minutes, and has a covering of a bluish but not firm texture, which is interspersed with a few spots of yellow buff about a quarter of an inch in circumference. The relief obtained from pain and oppression still continues; the abdomen is less sore; the anasarca is visibly diminished in every part; one eye is entirely, the other par-

sal soda, and three of the carbonate of iron, to be taken three times a day.

April 3d.—Powders cause sickness and vomiting. Let them be repeated with the addition of the infusion of mint.

April 4th.—Refuses to continue the powders. Bowels not free.

Prescribed.—An oil draught.

R. G.

tially open; five stools, with less tenesmus; urine scanty and high coloured; pulse 100, and full; tongue soft; thirst moderate; appetite keen.

Prescribed.—Three grains of mercurial pill, one grain of the powdered leaves of digitalis, and and half a grain of pure opium, to be made into a pill, and taken immediately; to be repeated three times a day. A blister to be applied to the right hypochondrium; the abdomen to be rubbed twice a day with camphorated oil, and surrounded with a flannel swathe. M. B. Wine four ounces.

April 7th. Report. Anasarca has increased in every part since yesterday; the colour of the skin however, is better; the pain of back and abdomen has returned, but she is most severely distressed with severe pain from piles, which on examination are found externally enlarged and inflamed; four dysenteric stools with tenesmus; pulse 120, and hard; palpitation and sense of weakness very distressing; urine nearly a quart, and straw coloured.

Prescribed.—Let eight leeches be immediately applied to the piles themselves; the pills and friction as directed yesterday to be repeated. The blistered part to be dressed. M. B. Wine four ounces.

April 8th. Leeches could not be procured, and in lieu of them I directed four ounces of

blood to be taken from the arm. The blood has the same appearance as that first taken; the anasarca has totally disappeared from the face and upper extremities, but is stationary on the lower extremities; feels very little pain to-day; urine plentiful and high coloured. The pale olive colour of the skin has returned; complains much of debility; stools frequent, with tenesmus; no appetite.

Prescribed.—Eight grains of Dover's powders every sixth hour. L. B. Wine six ounces.

April 9th. No report; the same remedies as yesterday prescribed.

April 10th. Feels free from pain, and is generally better; three stools with less tenesmus; urine scanty; thirst urgent; hydropic infiltration increasing in both upper and lower extremities.

Prescribed.—Let the powders be continued, and let her have imperial drink, with thirty drops of tincture of opium to every pint.

April 11th. Feels less oppression, but complains of extreme debility; the dropsy is increasing; the purging frequent and dysenteric; pulse 120, small and hard; urine plentiful and pale.

Prescribed.—Immediately after each loose stool let her have two table spoonsfull of a mixture, composed of eight ounces of chalk julep, and fifty drops of tincture of opium; and an anodyne starch enema to be given in the evening. Ten drops of

tincture of digitalis twice a day. M. Wine eight ounces.

April 12*th.* No report.

Prescribed.—Continue the remedies.

April 3*th.* Can scarcely be induced to use any medicine, but relishes wine, and presses for more; takes a little broth; both dropsical and dysenteric symptoms continue to increase in severity.

Prescribed.—The same remedies. Wine eight ounces. M.

April 14*th.* No report. Remedies to be continued.

April 15*th.* No improvement in the symptoms; constant diarrhœa; the stools being bloody and purulent; much pain through the abdomen.

Prescribed.—Let the chalk mixture with tincture of opium be continued, and let her take thirty-five drops of balsam of copaiba, and ten drops of tincture of opium with mucilage of gum arabic, three times a day. M. Wine eight ounces.

April 16*th.* Says she feels less pain in the abdomen; pulse quick, weak, and small.

Prescribed.—Let the same medicines as yesterday be continued.

April 17*th and* 18*th.* No report. Remedies continued.

April 19*th.* No improvement in the symp-

toms, and she firmly resists taking any remedies, or any thing but wine. L. B. Wine six ounces.

April 20th. Omnia in pejus ruunt. She proposes herself again to take the balsam of copaiba with tincture of opium.

Prescribed.—Let the balsam of copaiba, with the tincture of opium, be repeated. L. B. Wine eight ounces.

April 21st and 22d. All the symptoms are increasing in urgency.

Prescribed.—The remedies and wine to be continued.

April 23d. Had a very copious hæmorrhage, the blood of nearly arterial colour, from the intestines, in the course of last night, and she feels, and is to all appearance a great deal better. Her voice is stronger, and she says she has a good appetite, and has no pain any where. The dropsy has totally disappeared from her face and lower extremities, and she has had a copious discharge of light coloured urine. Diarrhœa still frequent; pulse 120, very small.

Prescribed.—The same remedies. M. Wine eight ounces.

April 24th. Died at three A. M. this morning.

An examination of the body, made fourteen hours after death, presented the following appearances, as noted at the same time by Mr. T. Rooney, Surgeon to the Fever Hospital and

House of Recovery in Cork-street, &c. &c. who kindly assisted me on that occasion.

DISSECTION.

The inferior extremities and subcutaneous cellular membrane of the abdomen are anasarcous.

ABDOMINAL CAVITY.

The cavity of the peritoneum contains about two quarts of a fluid like whey, intermixed with portions of gelatinous lymph. This fluid resembles very much that found in an extensive chronic abscess.

The internal surface of the peritoneum is streaked at different points with red vessels. At the superior and posterior part, it has lost its natural smoothness, and is coated with adherent lymph. This is most remarkable upon the perineal covering of the diaphragm, liver, spleen and transverse colon. The folds of the small intestines adhere to each other; the jejunum is morbidly thick; it is connected by coagulating lymph to the whole length of the transverse colon.

Several hard livid tumours, varying in size from a crown piece to a sixpence, are dispersed over this intestine. Near the duodenum they are very numerous and large; similar tumours of

smaller size appear along the ilium. These tumours are covered by the serous membrane of the intestine. The adhesion between the jejunum and colon being separated completely at one of the tumours; the former intestine was found completely perforated by ulceration; and at two other tumours the same process had nearly taken place. The surrounding adhesions prevented the contents of the intestine from escaping into the cavity. On the internal surface of the intestine, the tumours exhibit bloody points and ulceration of the mucous membrane. The omentum is without fat, its vessels are distended with red blood. The great intestines, except that part of the colon adherent to the jejunum, present a natural appearance. The stomach, substance of the liver, spleen, pancreas and kidneys, are healthy. Hæmmorrhoidal tumours encircle the extremity of the rectum; the integuments of the left side of the anus are superficially ulcerated.

THORAX.

The left lung is perfectly healthy; the pleura, on this side, of the usual appearance. In the right cavity the lung adheres firmly in every part to the pleura costalis and surface of the diaphragm, the cavity is consequently very much diminished. The heart adheres by a soft gelatinous lymph to the internal surface of the pericardium at every

point. Its substance is rather soft, and smaller than natural.

OBSERVATIONS.

This case likewise affords illustration of the principles which I have ventured to express in the observation made on those which preceded it, but as far as respects the nature and cure of dropsies, it may be sufficient to remark here, that the inflammatory action with which the dropsy seemed to originate in this patient, supervened as in a preceding instance on dysentery, and that on this inflammatory state being relieved by bleeding, the dropsical effusion abated considerably. That even under the adynamic or confirmed form which it afterwards again assumed, the external hydropic infiltration was entirely, and the ascites partially, removed by a hæmorrhage from the intestines, which occurred the day before death.

The hæmorrhoids under which this patient had long laboured also deserve attention, for it may be seen that a large proportion of the cases of dropsical or purpural effusion presented in this work, was preceded by such *procidentia ani*, or piles.

The appearances presented by dissection, viewed in connexion with the history of the case, however, demand still more particular notice, as they may thus assist to throw additional light not only on the pathology of dropsy, and its connexion

with dysentery and purpura, but may add something to the knowledge of the nature of these two last mentioned diseases.

The first striking circumstance which we witnessed on opening the abdomen was the quantity and colour of the dropsical fluid. The quantity (about two quarts) must have been much greater forty-eight hours before death, as the abdomen had been then, and for some days previously, as were also the face and extremities, enlarged and distended by the dropsical effusion, greatly beyond what these parts exhibited for several hours before or after death.

The discolouration of the dropsical fluid "inter-" mixed with portions of gelatinous lymph, re-" sembling very much that found in an extensive " chronic abscess," assisted to decide its inflammatory nature, which was farther established by the cohesions observed between the external surfaces of the viscera in every part where the fluid pervaded, the same appearances and effects being detected in the pericardium as in the abdomen.

Further examination discovered the true seat of the disease to be in the small intestines,* and the

* In the valuable notes of dissections in dysentery by Dr. O'Brien himself,* or quoted by him from the Sepulchretum of Bonetus, and indeed in the dissections published by other authors, it appears that the ulceration in that disease

* See observations on the acute and chronic dysentery of Ireland, &c. by John O'Brien, M. D. &c. Dublin, 1822.

diseased action having in distinct parts of these intestines made various progress from its incipient to its ultimate condition, afforded an interesting and instructive subject for pathological enquiry.

The hard livid tumours varying "in size from a crown piece to a sixpence, were dispersed over the jejunum" being largest and most numerous near the duodenum, and unless when ulcerated, were covered over with the serous membrane of the intestines; in some of them this serous membrane was found perfect, in others it was partially affected or ulcerated through. In some of them

is most generally confined to the large intestines;† several instances however, of ulceration high up in the alimentary canal, like that given above, though perhaps not in what could be legitimately deemed dysentery, have come under my knowledge. In one example which I ascertained by dissection, and may be found detailed in the 1st vol. of the Transactions of the King's and Queen's College of Physicians in Ireland, page 25, 26, 27, and 28, the stomach itself was found ulcerated and ruptured to a considerable extent, and the ulceration appeared to have been of long standing. In two other cases which came under my care in the Fever Hospital and House of Recovery, Cork-street, both of which I have mentioned in my report from that establishment for the years 1820 and 21, ulceration appeared to have commenced in the stomach or small intestines, as their contents, the ingesta little altered were for many days before death discharged through a small abscess which formed at the epigastrium of each patient.‡

† See Transactions, &c. vol. 1st, Dublin, 1817.

‡ See Medical Report of Fever Hospital and House of Recovery, Cork-street, Dublin, for the years 1820, and 21. Page 61, 62, 91 and 92.

the ulceration was found to have extended externally as well as internally, the external, like the internal coats being partially penetrated, or totally passed through, as was found at that part where the jejunum and colon adhered, so as to prevent the escape of the contents of the intestines through the aperture which had taken place.

With the knowledge of such facts I feel further emboldened to maintain these principles which I have ventured to apply in the course of this work to the consideration of the nature and cure of diseases, at least of such as are the immediate subject of these remarks.

Here the incipient disease was discovered to be in livid tumours, exactly resembling piles after death, for so the anatomist expressed, as soon as he saw them; the colour of each tumour, as well as its seat in the vascular coat of the intestines, manifesting the accumulation of the blood on which it depended.

The obstruction to the flow of blood, which led to its accumulation, may arise from loss of power in the vessels, or from cohesiveness of the blood, or from both these causes together, which last condition I believe to be the most frequent; and that the tumours, in this instance, were connected with loss of vascular power, as well as with morbid cohesiveness of the blood, is, I think, rendered probable by recollecting that the piles which this patient stated she had laboured under many

months previously to the dysentery, were preceded by a long protracted fever, and that it was during recovery from it that the hæmorrhoidal excresences appeared. The analogy between these tumours and piles would also lead us to a supposition, that they were connected partly with siziness of blood, as every practitioner in medicine of any experience must have observed how generally blood is buffed when drawn from those disposed to piles.* The practical application of this analogy will be more fully considered, under the head of the method of cure.

* In my preceding observations on the buffy coat of the blood, I stated that the presence of that dark coloured kind, which generally occupies a considerable portion of the coagulum, indicates the liver to be chiefly affected; to this however I have to add in this place, that I do not mean thus to be understood that the texture of the liver is injured, but that its function is impaired. The blood in its passage through that organ not being duly changed, may arise either from diminished power and action in its own proper vessels, or from the blood flowing into the vena portæ being so surcharged with the hydrocarbonous principles of the dark venous blood, as either to exceed the function of the liver, or suspend its action, as occurs, I am persuaded, in cases of piles, or of such livid tumours as those mentioned above, which I believe generally are the means of obstruction to the flow of blood in the minute branches of the mesenteric vessels, and whence it is that the discharge from piles generally gives relief to oppression in the biliary system, whilst the suppression of such discharges are as generally found to increase the tendency (if any previously exist) to liver disease.

Not only the local appearance in the intestinal canal which marked the course of disease there, shewed how much the blood was concerned in it, but the colour, admixture, and accompanying adhesive inflammation of the dropsical fluid formed in the pericardium, similar in all respects to that in the abdomen, decidedly indicated the blood to be the chief, if not only medium of disease between parts otherwise separated; and besides the texture of the intervening viscera did not present any marks of disease.

This view of the subject will be found further illustrated by each of the cases of dissection which I have introduced into this essay, whether in Dropsy or in Purpura, the parts occupied by the effusions which constituted either disease not being physically connected together, except through the medium of the circulating fluids.

In concluding these observations on the cases of Dropsy, I beg to state, that in each individual case I have confined myself chiefly to the most striking circumstances, avoiding as much as possible, the same remarks which had been previously adverted to. By thus trying to shun the error of needless repetition, I fear that the observations on each case, when viewed separately, may be deemed less complete than the case itself demanded. This perhaps might not appear from a more general view, which would connect all the observations together.

PURPURA.

In making use of the term "Purpura," I mean to include, according to Dr. Bateman's arrangement,* "every variety of petechial eruption, "and of spontaneous ecchymosis; not only the "chronic form of it, which is unaccompanied by "fever, and which has received various deno- "minations, (such as hæmorrhœa petechialis, "petechiæ, sine febre, land scurvy, &c.) but also "that which accompanies typhoid and other ma- "lignant fevers;" but as in treating of dropsy I confined myself to these varieties of that disease which I had cases to exemplify, so I shall here treat only of such varieties of the Purpura as I can illustrate in the same way; the very striking analogy between the nature of these effusive diseases appearing to me to require that they should be similarly divided into the dynamic and adynamic kinds, the propriety of which will be further illustrated by the cases under each division.

* See Practical Synopsis of Cutaneous Diseases, according to the arranegment of Dr. Willan, &c. &c. By Thomas Bateman, M.D. F.L.S. &c. &c. Lond. 1813, p. 102.

DYNAMIC PURPURA.

As two cases of this form of Purpura, in the beginning of this work, are fully detailed, and as observations have been made on their symptoms and causes illustrated by dissection ; it might be deemed needless farther to exemplify that part of the subject ; I therefore beg leave to refer the reader to the eleventh and succeeding twenty-five pages, with a single remark, that these cases, though not uniformly attended by discharge of blood from ruptured vessels, were not on that account to be less considered as instances of an hæmorrhagic state of the vascular system, whieh is proved by the purple effusion under the skin, as a hydropic diathesis is by anasarca.

The necessity of attempting to distinguish such cases of Purpura from those which next succeed, may appear from the following extract from Dr. Bateman's excellent work on the subject ; and may be received as some excuse for the undertaking it, even without success.*

" The causes of this disease are by no means " clearly ascertained, nor its pathology well un- " derstood. It occurs at every period of life, and " in both sexes ; but most frequently in women, " and in boys before the age of puberty, particu-

* See Synopis, by Dr. Bateman, p. 108.

" larly in those who are of a delicate habit, who " live in close and crowded situations, and on " poor diet, or are employed in sedentary occu- " pations, and subject to grief and anxiety of " mind, fatigue and watching. It has likewise " attacked those who were left in a state of debi- " lity by previous acute or chronic diseases. In " one of the fatal instances above mentioned, it " came on during a severe salivation, which had " been accidentally induced by a few grains of " mercury, given, as I was informed, in combina- " tion with opium, for the cure of rheumatism. " It has sometimes occurred as a sequela of small " pox, and of measles; and sometimes in the " third or fourth week of *puerpural confinement.* " The disease, however, appears accidentally, and " in its severest and fatal form, where none of " these circumstances existed: for instance, in " young persons living in the country, and pre- " viously enjoying good health, with all the ne- " cessaries and comforts of life."

ADYNAMIC PURPURA.

The cases which will be presented under this denomination came under my attendance at the Fever Hospital, except the last, with the notes, of which I have been favoured by Dr. Osborne; they

were taken by him whilst clinical clerk at Sir Patrick Dun's Hospital, where the patient was admitted, and where the dissection was made by Dr. Macartney, the accomplished Professor of Anatomy in our University.

All these cases which I have selected were attended with extreme debility, and some of them with contagious fever of a typhoid type—a distinction, which will be noticed in my remarks on the cases. It will be seen too that purple colour of the extremities is the most striking feature in many of those cases which I have selected, such symptoms appearing to me to mark the most exquisite form of Adynamic Purpura; and it will be shewn, that during the process of recovery in the second case, the diffuse ecchymosis which constituted the purple surface on the extremities, became circumscribed in spots, the margins of which gradually contracted, until just before their final disappearance, they in every way resembled small and faint coloured petechiæ. I had the pleasure of being accompanied by my colleague, Dr. Barker, Professor of Chemistry in our University, to witness the above interesting process shortly before its conclusion.

I had hoped to have been able, with the assistance of my son's pencil, to present a few drawings of the Purpura in its various stages, as well as of the colour of the skin in various forms of Dropsy; his collegiate studies, however, *now*

claim all his time, but perhaps I may be more fortunate at some future period.

CASE I.

Rose Moore, aged 66 years, admitted into Cork-street Hospital, *September 28th*, 1822, had been for many years washerwoman to a regiment of carbineers, and to the Sligo Militia.

Sept. 29th. At present lies in a state of insensibility, incapable of giving any account of her illness. Her face and extremities are quite purple, that colour equally diffused over them; that part of the tongue which can be seen is also purple, and a dark but pallid hue pervades the rest of the surface; the skin is cold and clammy; no pulse to be felt at either wrist; the breathing is very laborious and sonorous; the limbs are anasarcous, and the belly full and tense.

Prescribed. *Applicetur emplastrum calidum sterno, et alterum inter humeros. Laventur pedes et manus spiritu vini camphorato et tegantur panno laneo. Fricetur abdomen oleo camphorato.*

℞. *Aquæ puræ uncias septem. Spirit Ammoniæ Aromaticæ drachmas tres. Syrupi scillitici semunciam. Liq. ætheris oleosi drachmas duas. syrupi unciam, et tinctur opii guttas* xxx.

Misce et signa sumat semunciam omni quadrante horæ dum perstabit vita.

Injiciatur enema terebinthinæ statim et repetatur, 2da q. q. hora ad alvi solutionem.

Low diet. Wine 8 ounces.

Sept. 30th. Is in every way much relieved; skin less purple, and of natural temperature; breathing relieved; pulse at the wrist 80; still feeble; had three fœtid melænous stools from the injection; expectorates freely thick dark spits. The swelling of the lower extremities has disappeared; speaks distinctly and coherently, and complains of keen appetite; urine scanty and high coloured; tongue soft, but with a dark fur on it.

Rep. remedia heri præscripta.

M. B. Wine 8 ounces.

October 1st. Now says she was ill eight days before admission. Illness commenced with rigors and head-ache, after being heated, and exposed to wet; has no recollection further of her illness. She rested well last night, and the purpura on the face and extremities entirely gone, except a very partial appearance of it on the backs of the hands, which are still cold. Feet of natural colour and warmth. Two very dark and fœtid stools from the injection; urine free; swelling of legs and belly has totally disappeared; good appetite; gums spongy and breath fœtid; pulse 84 and firm;

expectoration free; cough and difficulty of breathing much easier.

Habeat Haust. Oleosum statim et enema tereb. postea.

Repetantur alia.

October 2d. Five stools from the draught and injection; rested pretty well; makes no complaint; the cough and difficulty of respiration, however, still continue in some degree; the purpura, which remained on the back of the hand yesterday, has since totally disappeared. Pulse 84 and strong; urine free.

Repetantur remedia ut heri præscript.

October 3d. She is somewhat comatose to day, however is easily roused, and speaks with a strong voice and coherently, but makes no complaint; the cough is frequent and expectoration rather more difficult than yesterday; spitting ichorous; pulse firm (86); three stools; some purpura to-day observed at the elbows; skin on the other parts of natural colour and warmth; tongue soft but loaded; gums spongy; breath fœtid.

Prescribed. *Lavetur caput prius rasum, spiritu vini camphorato, vesicatorium nuchæ.*

Sumat pulveris Ipecacuanhæ grana duo, 6ta q. q. horâ.

Habeat misturam expectorantem.

Omittatur mistura aromatica.

Rep. alia. L. Wine, 8 oz.

October 4th. Slept soundly through the night, excepting when roused by cough, which, as well as the difficulty of breathing, is urgent; pulse 108, and small; expectoration very free, and the spit is dark and purulent; the colour of the skin not so natural as it was yesterday; the Purpura at the elbows as yesterday. The surface of the trunk and extremities is warm and dry, but that on the hands is clammy; two scanty stools; urine scanty; tongue brown; thirst urgent. She has been long a hard drinker, and would prefer spirits to wine, which she begins to loathe.

Prescribed.—*Habeat aquæ Cardiacæ uncias duodecum, partitis vicibus, sumendas. Post horas duas, Injiciatur enema terebinthenatum. Sumat statim haustum oleosum cum olei terebinthinæ drachmis duabus. Repetantur alia.* L. Wine 4 ounces.

October 5th. My attendance at the hospital having ceased for two months, I received the following report of this patient from Dr. Osborne, whose interest about the case, led him to visit the hospital on that day. Rested well, and awoke much refreshed; breathing easy; cough abated; expectoration copious, dark coloured and purulent; pulse 80 and firm; skin of natural temperature and colour; bowels well freed by the draught and enema; desirous to sit up; appetite keen, loathes all kinds of medicine.

P. S. On enquiry at the hospital I learned, that

this patient had a severe relapse of the pectoral affection on the 9th of October, the effect of which continued without intermission to the 14th, when she expired. There was no return of purpura before death.

OBSERVATIONS.

The texture of both thoracic and abdominal viscera appeared to be very generally engaged in this case; and considering the train of symptoms detailed, it would avail nothing to conjecture whether the solids or the fluids were primarily affected, for in subsequent stages it was manifest that both were materially, perhaps equally concerned.

The hæmorrhagic state of the vessels was evidently connected with their extreme debility; thus the blood was effused, and produced the disease; but the melænous discharges from the intestines, the foul expectoration, the livid colour of the tongue, all shewed that the condition of the blood itself was morbid, to which the disordered state of the alimentary and biliary system, arising out of this woman's habits of life, had strongly predisposed her. Such a morbid change in the condition of the blood leading to its partial and spontaneous effusion, is rendered further probable by the striking analogies in other particulars between this case and that of Margaret Reilly; the first of adynamic purpura de-

tailed, in which the blood drawn both on the first and second venesection exhibited a preternatural appearance. See page 66.

Where there were so many causes, any of them sufficient to account for death, the main question which can arise is with respect to this patient's recovery from the moribund state in which she was found when brought into the hospital, and her afterwards continuing to improve for several days, a question which is particularly interesting, inasmuch as its consideration leads to shew that under the most unpromising circumstances, the means of preserving human life should not be relinquished.*

The efficacy of the various stimulants employed here was abundantly obvious; and I cannot help taking this opportunity of stating the confidence my experience in the use of turpentine has given me, deeming it a valuable addition to the Materia Medica, especially as an useful stimulant purgative in diseased states of the blood, connected with intestinal and hepatic derangement.†

* The above observation has been suggested by the conduct of the friends of the patient, rather than that of nurses at hospitals; for I have seen despair arise oftener, out of too anxious affection, than out of more moderate hope for the patient.

† I am the more desirous to make this statement from a wish to remove from the mind of our English medical friends

CASE III.

Catherine Rourke, æt. 36, was admitted into the Fever Hospital, Cork-street, on the 30th of April. Her nose, part of her cheeks, and upper and lower extremities were of a purple colour, diffused unequally, the stains being deeper in some parts than in others.

May 1*st.* This patient's illness commenced on the 14th of April, with rigors, head-ache, and vomiting, which she attributes to fatigue, depressed spirits, and exposure to cold. Her fever has continued ever since. Has used much purgative medicines, and James's powder, in the course of it. The catamenia appeared on the 25th of April, several days before the usual period, and still continue. This discharge had been always previously regular. On the 26th of April the purpura appeared on the parts which they now occupy, and the eruption was accompanied by increased restlessness, uneasiness at head, slight delirium and anxiety; has had no sleep since. The purpura is much less on the lower extremities than at the time of admission, but unchanged on the face and upper extremities. Is much distressed with nau-

an opinion that we here are prepossessed against that remedy by the manner in which it was introduced; neither personal enmity or intimacy with the reputed author of that valuable remedy exists to influence my opinion of its efficacy.

sea and frequent vomiting of grass-green fluid. Tongue deep-yellow and loaded, but soft; pulse 100, and feeble; feels excessive soreness on very slight pressure over either hypochondria or epigastrium, and the tendency to vomiting is farther excited by it. One stool since admission; urine free; thirst urgent; skin moist.

Prescribed.—Let the head be immediately shaved, washed with camphorated spirit of wine, and covered with flannel. Let her have five grains of blue pill every sixth hour, and an enema in the evening. A blister over the right hypochondrium; mint infusion, to settle the stomach, to be frequently given. L. Wine 4 oz.

May 2d. Slept well through the night, and feels much better to-day; the purpura has entirely disappeared, leaving but a few dark and large petechiæ on the backs of the hands, and over the feet; thirst urgent; tongue cleaning and soft; three stools with tenesmus; the vomiting is much relieved; but still throws up a little of the same green bitter fluid; the blister has risen well; urine free; pulse 70; the soreness at the epigastrium and hypochondria entirely removed.

Prescribed.—Let the mercurial pills, infusion of mint and enema be repeated. M. Wine 4 oz.

May 3d. Purpura almost totally disappeared. The petechiæ contracting in extent, and the co-

lour becoming more faint. She continues to recover; no vomiting; one stool. Continue the remedies.

May 4th. Feels better in every respect, except sharp pain in the joint of left shoulder. Purpura has totally disappeared.

Let a blister be applied to the pained part. —Repeat the remedies. M. B. Wine 3 oz.

May 5th. Blister has risen well, the pain relieved, and is better in every respect. Eyes and face slightly jaundiced.

Repeat the mercurial pill, infusion of mint and enema. M. B. Wine 2 oz.

May 7th. Prescribed.—Let the mercurial pills be discontinued, as they have caused some excitement of the circulation; 6 drachms of sulphate of magnesia immediately, and half a drachm of Peruvian bark three times a day. M. B.

May 14th. This patient has been doing well since last report, except that she has at times felt rheumatic pains, on account of which, and the tendency to intermittents which then, and for some months prevailed, Peruvian bark in powder has been daily administered, the bowels being kept free by purgative medicines.

May 18th. Was attacked at midnight with rigors, headache, restlessness and thirst, which still continue. Skin hot and dry; complains of extreme oppression; tongue loaded and yellow; face flushed; nausea frequent; bowels costive; urine pale; pulse 120.

Prescribed.—Venesection to 10 ounces; a pill of 4 grains of calomel, with an oil draught and an enema in the evening.

May 19th. Felt immediate relief by the bleeding. The blood is slightly buffed; the surface yellow and frothy; the rest of the coagulum solid and of natural colour; five bilious stools; tongue furred and yellow; pulse 80; slept well, and feels neither oppression or sickness; says that she was much in the habit of being bled from the arm, especially in the spring of the year, and that it always gave her relief.

Prescribed.—Repeat the fomentation of the feet, and the enema, if necessary; omit the other remedies. M. B.

May 20th. Is rather more faverish to-day, and feels more oppression of spirits than she did yesterday; pulse 100; bitter of taste of mouth, and has more pain of right side over the hypochondrium.

Prescribed.—Five grains of blue pill twice a day, and right hypocondrium to be rubbed well with camphorated oil.

May 21st. The fever is now apparently symptomatic of the state of the biliary organs, which have been disturbed by the friends of the patient secretly giving her food improper for her. As the sequel is no longer interesting to the subject of the work, the connection between the state of the hepatic system and the other symptoms being established, it will be needless to detail it further.

In the two succeeding days the fever declined, but the jaundice of the surface increased, accompanied, on two nights, with a severe return of green vomiting.

OBSERVATIONS.

This affords an instance of the extreme difficulty of applying any epithet to this disease, which may not in some cases be objectionable. Thus, this must be considered as a case of the Purpura Hæmorrhagica, the second variety of that species which Dr. Bateman denominates chronic, an epithet which cannot be deemed entirely applicable to a case of purpura, so sudden in its appearance, and so speedily removed.

The term adynamic, which I have ventured to apply to such cases, will also be deemed objectionable by many whose attention might be fixed by several of the symptoms observed in the history of the case, who perhaps would have had it named and treated as one of the phlegmasiæ. When, however, it was placed under my care, I observed on many of its symptoms a combination of typhoid character, which I found then to influence the course of fever in general, and therefore was led to treat it as of the adynamic character, which the results of this and of succeeding cases amply justify.

The bilious green vomiting, the tension at the hypochondriac region, and the slight jaundice which accompanied the irregular appearance of

the catamenia and the purpura, led me to consider the function of the hepatic system as chiefly concerned, and the speedy efficacy of the means adapted to that object was decidedly in favour of that opinion.

In almost all the cases of dark purpura which I have witnessed, there were evident marks of diseased function of the liver, spleen, or alimentary canal; and I have been thus further induced to entertain the opinion already contended for, that the morbid state of the blood in this disease arises frequently from want of that due change it *should* undergo in the hepatic system, owing either to the previously disordered state of that part of the circulating mass which passes through it exceeding its function, or from its own diminished or changed action.

In Purpura contagiosa, on the contrary, as will be noticed in my observations on cases of that kind, in which the hæmorrhagic tendency prevails equally over the entire vascular system, and is connected with atony, the purpura is generally light coloured, which accords with the foregoing opinion; but when dark melænous discharges from the intestines, and bilious vomiting, or the alternation* of these with purpura occurs, as I have frequently witnessed, it strongly marks the close

* See my Report from the Fever Hospital and House of Recovery, Cork-street, for the years 1820 and 1821,—page 24.

connection that subsists between these symptoms of disease.

In the dissections made in dropsy, as well as in purpura, the same connection may sometimes be noticed.

The sequel of this case merits attention, particularly as the same change in the nature and character of typhoid fevers, when they relapse, may be often observed. And, as in this instance, bleeding, which might have been injurious in the primary attacks, from contagion or any other debilitating cause, will generally be found beneficial in relapses.

CASE III.

Mary Toole, æt. 30, admitted into the hospital on the 30th of April, with severe pulmonary complaints, of seven weeks standing, for which she had been twice largely bled early in the complaint, which bleedings gave her but temporary relief. On admission she got an opening pill, which operated freely; and on the succeeding day her breathing was so much affected, accompanied with pain of the side, and hard pulse, that nine ounces of blood were directed to be taken from her arm, a blister to be applied to the sternum, and an expectorating mixture to be given occasionally.

On the 1st of May her symptoms, from what

I could learn of her previous history, appeared to have increased in severity; her breathing being more hurried, her pulse rapid; the natural colour of her skin had fled; her stools were scanty and bilious, and urine also scanty. Five grains of blue pill were then directed to be given with an oil draught, and an enema in the evening; the expectorant mixture to be continued. L. Wine four ounces.

May 2d.—Her upper extremities, from her shoulders to the tops of her fingers, and her lower extremities from the hips downwards, are of a dark purple colour, which came on in the course of last night; and she states that five weeks ago the same purple appearance occupied the same parts as it does now for about twenty-eight hours, and then disappeared. She also states, that on the second bleeding, which was the day before the coming on of the purpura, the regular catamenia, which had but just commenced flowing, suddenly stopped, and have not since been restored; that her menstruation, however, had been always regular in its periods. Her countenance is now anxious; her lips and tongue purple; skin cold and clammy; feels considerable pain in the right hypochondrium, which has been there more or less through the whole course of her illness. Pulse 110, and hard but small; appetite keen; three stools; urine scanty; breathing very quick; much fætor.

Prescribed.—Let the upper and lower extremities be immediately wrapped in warm flannel, and additional blankets be put on her bed; five grains of mercurial pill, with a drachm of sirup of squills to be given every sixth hour; a blister to be laid over the right hypochondrium; one ounce of camphorated mixture, with three drops of tincture of opium to be given every third hour; the expectorant mixture to be continued. M. Wine six ounces.

May 3.—Very little change since yesterday; purpura not altered; is much distressed by large external piles, with which she says she has been for ten years affected; pulse 110, and firm; urine scanty; belly costive.

Prescribed.—Eight leeches to the inflamed piles; an oil draught of castor oil and oil of turpentine, and a turpentine enema afterwards; the other remedies to be continued. M. Wine ten ounces. L.

May 4th.—The leeches were not applied, as the attendants thought her to be moribund; at present her face has the pallid look of death; her breathing quick; thorax heaving; the purpura as yesterday; lips and tongue quite livid; fœtor exhaled; the eyes and mouth lie open; the vision apparently lost, and pupils dilated. The pulse, however, is still very full and firm.

Prescribed.—Let the head be immediately shaved, and a blister applied all over it; let the

leeches be also applied to the inflamed and enlarged pile. The other remedies, as directed yesterday, to be repeated. L. Wine eight ounces.

May 5th.—Vision and general sensibility somewhat restored. There is however some apoplectic stertor; pulse 120, and firm. Four leeches were applied to the pile, and caused a copious discharge of blood. Purpura much diminished; and colour of tongue, lips and skin in general improved. Stools scanty; fœtor less.

Prescribed.—A draught, with castor oil and turpentine, and an enema; a mixture composed of water eight ounces, aromatic spirit of ammonia three drachms, tincture of opium thirty drops, sirup an ounce and half; an ounce to be given every hour; a blister to the forehead.

May 6th, 1 o'clock, P. M.—Appearance little changed since yesterday; the colour of the skin is again of deathlike pallidness; the remnant of the purpura in the lower extremities and elbows stationary; much fætor. Urine flows without any voluntary effort made by the patient; still swallows, but with increased difficulty; breathing laborious; no stool; mors propinqua est.

Prescribed.—So long as the power of swallowing remains, let the medicines, as directed yesterday, be continued. L. Wine eight ounces.

Evening.—Died at 5 o'clock, P. M.

Not being able to persuade the friends of the deceased to allow an examination of the body be-

fore it was removed from the hospital, that enquiry was undertaken by Mr. J. Stokes, Licentiate of the Royal College of Surgeons in Ireland, &c. whose kindness in complying with my request demands my warmest acknowledgments. The following letter, with which I have been favoured by him, is the result of his laudable activity.

"MY DEAR SIR,

"Accompanied by Mr. Houston, a very intelligent pupil of Mr. Shekleton, I went to Mill-street, where we were received by no very welcome epithets; however a little money secured my safety for so long a time as to prosecute the dissection; and although I fear it has not turned out as profitably as you anticipated, yet I hasten to lay before you *all* the subject afforded, after a vigilant anxiety to promote the object of your request. I shall deem it only necessary to state the *deviations* from the natural state of the parts, or from health. (By way of parenthesis, I have to observe, her acquaintances assured us she was 36 or 38 years of age, and had been of a phthisical habit, of which her sister appears to be dying.)

"1st. The trunk, head and extremities shewed no vestige of discoloration or spot, with the single exception of a defined purple spot, darker in the centre, with a smooth surface, and felt slightly

elevated above the surrounding skin. In other respects the skin was of an opaque white hue: this spot was situate on the centre of the tibia of the left leg, and about this  size.

" 2d. On removing the scalp, cranium and dura mater, the brain felt of a very *firm consistence.* The veins or sinuses were by no means distended. By making the usual horizontal section on a plain with the corpus callosum, I was struck with the unusual color of the medullary portion. It *appeared as if daubed* or smeared with a *bloody sponge*; and on *pressing* the *cut portion*, it gave out globules of blood, evidently shewing the increased but minute vascularity of the cerebral mass. This state of the brain extended throughout both hemispheres, without any communication by vessels or otherwise. This vascularity, I conceive, tended to produce the preternatural density and firmness of the whole brain. There was no effusion between the membranes, and the ventricles were found unusually devoid of fluid. My friend and I have not observed a similar want of secretion in those cavities. The vessels of the base of the brain and scull were natural.

3d. " On opening the thorax in the usual way, the pleura presented no trace of diseased action, further than the intimate adhesion of the right lung to the ribs, which adhesion was with great difficulty separated in order to trace the extent; the lung itself was smaller than *the left*, which was

free, and *(as the other, excepting what is now stated)* perfectly free from disease. The heart and its membranes also sound; the *vessels of both circulations* perfectly sound; the œsophagus and trachea in a similar state. There was a lateral curvature of the spine of the thorax.

"4th. The abdomen being opened, its glandular and hollow viscera shewed no trace of diseased action. The uterus was slightly cartilaginous at its cervix.

"I have thus only attempted to give you the state of the body as altered from health, not wishing to engross too much of your time. Should there be any circumstance not dwelt on by me in this hasty sketch, and on which you may feel interested, I beg you may command one who feels interested, and with great respect,

"Your very sincere friend,

"JOHN STOKES, JUN."

"20 FRENCH-STREET,
"MAY 8, 1823."
"*Wm. Stoker, Esq. M. D.*
"*York-street.*"

OBSERVATIONS.

This affords another example of Adynamic Purpura supervening on an opposite condition of that disease, owing perhaps to the debilitating influ-

ence of a typhoid fever, induced by the close situation where this patient was confined in the early part of her sickness; secondly, by the prevailing tendency of the epidemic at that period; and lastly by the interference of the second bleeding with a regular flow of the catamenia.

The venesection which I directed after she was placed under my care, on account of the paramount urgency of the inflammatory symptoms, did not appear to be beneficial, owing, I think, to the foregoing circumstances; and the low state of vital power which succeeded the employment of that remedy, imperatively demanded the aid of cordials. Though I deeply regretted at the time the delay of the application of leeches to the hæmorrhoidal tumours, as I had directed, having often witnessed the decided benefit of such an application in threatened metastasis to the head; and though the result of the dissection might assist to confirm my favourable opinion of taking blood as quickly as possible from the piles themselves, in such cases, yet I now think it very questionable that this remedy would have been as useful in this as in other instances.

The opinion that diseases, especially those which form the subject of this work, are often primarily or chiefly connected with the state of the blood, obtains farther support by this examination after death; for as in preceding cases there

was scarcely any disorganization which could at all account for the symptoms, or explain the cause of death, but on the contrary, the morbid condition of the blood, and the diminution of vital power connected with it, seem to offer the only clue which could guide pathological enquiry in a disease so obscured by circumstances as purpura is acknowledged to be.

Here too was discovered an example of purely sanguineous metastasis, that might, if not viewed in connexion with the previous history of the case, suggest bleeding generally and locally as the only remedies in similar cases, and attended with such apoplectic symptoms as those which preceded dissolution. When, however, it is recollected that, as was stated, no benefit was derived from the first or second bleeding, and that the purpura with other alarming symptoms had first appeared on the second bleeding, which took place during the flow of the catamenia, and that similar symptoms almost immediately succeeded the venesection directed after she came into the hospital, I venture to say, that it is more than questionable that bloodletting in any way would have been effectual for the relief of the morbid condition of the blood, of the irrregular vascular action, or of the unequal distribution, which led to metastasis.

This opinion, involving in it the consideration of the manner in which metastasis takes place, in

such cases requires some further notice. The removal of the purpura from the internal surface could have only been effected by the absorbents taking up the dark blood and conveying it through the lymphatic system to the minor circulation, and thence carried by the aorta to its extreme branches. Now, supposing that the blood found in the brain on dissection was still in the extreme arteries, a supposition which is not supported by analogy, still it would be very questionable, I think, that blood taken from the temporal artery, the most likely mode to be beneficial, would have given relief from congestion in its minute branches. On the contrary, by diminishing the *vis a tergo*, the remora of morbid blood, which then constituted the disease, might be supposed to be further established, and in this way probably it is that death often appears to be hurried on in cases of debility, after the symptoms of metastasis to the brain have decidedly set in.*

* Of the utility of taking blood from the temporal arteries in vascular congestion of the brain, in ordinary fever and in certain apoplectic cases, I have on several occasions borne my testimony. Where vascular power is undiminished, and the state of the blood is such as to be readily transmitted through the vessels, I still believe it to be a truly valuable remedy, but whether it is owing to a change in the type of fever, and therefore not attended with so great a determination of blood to the head as formerly, or to its being of a more debilitating nature, I have not found arteriotomy as frequently

The livid appearance of the tongue, mentioned in the history of this case, should not pass unnoticed, both as evidence of the diseased condition of the blood whilst circulating, and as a symptom which always marks a protracted and dangerous, and often a fatal form of fever. It is, I think, much of the same nature of those dark coloured aphthæ on the tongue, sometimes attendant on bad fevers, which, as Dr. Wilson* justly observes, are never favorable, and often a very fatal symptom. I have known it to occur in malignant fevers without hæmorrhagies from the lungs or intestines, and in others without petechiæ, but I do not recollect to have observed it when one or other of those symptoms did not accompany it.

The faint appearance of the purpura, for a day or two before death, may be supposed to arise from the translation of the blood by metastasis, the blood found diffused in the brain after death being probably that which had previously given the purple colouring to the extremities.

I should not omit to mention the peculiar fœtor which attend some cases of this sort of purpura, when of a bad kind, or the effects of contagion.

necessary as formerly, neither have I by any means so frequently prescribed it.

* Treatise on Febrile Diseases, &c. by Philip Wilson, M. D. Vol. I. page 110.

It is somewhat of the same acid or musty fœtor that is so well known to characterize confluent small pox, but I think more heavy and disagreeable. I believe it might be deemed, under various modifications, characteristic of the typhoid or worst forms of the exanthemata.

In concluding my remarks on this case and dissection, I think it may be said to afford, if not full illustration of the subject, at least proof of the difficulty in which this branch of pathological inquiry is involved; and that whilst it testifies to the great importance of anatomy in the investigation of the causes of diseases and of their symptoms, yet it also evinces the insufficiency of post mortem examination, unaided by the previous history of the case, to account fully for these symptoms, or to suggest means of preventing their fatal termination.

CASE IV.

PURPURA CONTAGIOSA.

John Campbell, æt. 42, an attorney's clerk, admitted into the hospital on the 19th of April, (the third day from the commencement of his indisposition) was previously exposed to contagion, two of his children, ill of fever, having slept in

the same chamber with him during the week before.

April 20th.—Report. No sleep during the night; constant delirium, and rising out of bed; answers incoherently; voice tremulous; lies on his back; his hands and limbs shaking; his complexion is florid; his skin on the face and neck also florid; that on the trunk and extremities warm, and covered over with petechiæ, in colour and in shape resembling the eruption in measles; his tongue, which trembles when he attempts to protrude it, is furred and brown, but moist; the vessels diffused over the cornea and the eyes are turgid, and the eyes themselves express anxiety, though not bent on any external object. Pulse 120, not as firm as is natural; urine passed unconsciously, the typhous odour perceptible. Bowels costive, though he took some purging mixture since admission; belly full and tense; frequent short cough, but breathing not hurried.

Prescribed.—Let the head be shaved and washed with camphorated spirit of wine; a blister to the nape of the neck. A mixture composed of eight ounces of purging mixture, and two grains of tartarized antimony directed to be given in doses of three table spoonsful every hour till purging or vomiting be excited, and three grains of calomel to be given every sixth hour till the bowels are freed; an enema in the evening if necessary; the abdomen to be well rubbed with camphorated

oil, especially over the right hypochondrium, twice a day, and the feet to be stuped with flannel and hot water at bed time.

April 21st. Report. Took six doses of the purging mixture, and two doses of calomel, assisted by an enema, before the bowels were fully freed; has since had three copious dark stools; got some sleep at short intervals, accompanied with moaning through the night. Belly less tense.

Delirium, Petechiæ, and other symptoms little changed. The typhous fœtor continues; pulse 120, and feeble. Urine passed under him.

Prescribed.—An oil draught and enema. Two table spoonfuls of camphorated mixture, and one table spoonful of fresh barm, to be given every fourth hour. Three grains of antimonial powder to be given after the feet are stuped at bed time. L.

April 22d. Had two copious bilious stools, got some rest, is less delirious to day, and gives notice when about passing water, which is crude and pale; the colour of the petechiæ is declining; pulse 100, and firmer than it was yesterday.

Prescribed.—Omit the oil draught, but let the other remedies be repeated as yesterday.

April 23d.—The tremor of his limbs and and tongue has ceased; got some rest in the night, and lies more tranquilly on his side. Pulse 100, firm; urine free; one scanty dark stool; the petechiæ as yesterday.

Prescribed.—Let him take 5 grains of blue pill twice a day, and an injection in the evening, if necessary. Repeat the other remedies as yesterday.

Under this plan, which was pursued with little variation, except that he got four ounces of wine daily, from the 20th of April, he continued to recover gradually until the 4th of May, when he was convalescent; the only critical discharge noticed being that of increased flow of bile by stool, and pink coloured sediment in the urine. Emaciation proceeded rapidly during the fever.

During his convalescence he had been allowed the middle diet of the hospital. His bowels have been kept duly free, and he has taken half a drachm of Peruvian bark twice a day, a remedy which I have employed in convalescence from fever more generally since the tendency to agues has been more observable than usual. Recovery, as generally happens in such cases of exquisite typhus fever, went on very slowly with this man, and though he had no relapse was not dismissed cured until the 28th of May.

CASE V.

PURPURA CONTAGIOSA.

Anne Carrol, a mantua-maker, aged 26, married three years, and mother of two children, naturally of full habit, but otherwise well formed, admitted into the hospital on the 2d of May, having an infant four months old on her breast; is delirious and somewhat comatose, and therefore incapable of giving any account of her illness. From the friends, however, it was learned that she had been eight days ill, that her illness commenced with rigors, headache, and a sensation around her waist like that produced by the stinging of nettles; that she had been exposed to contagion by being in the room with two persons affected with similar symptoms to those she now labours under, which persons were subsequently admitted into this hospital. The surface of her body and limbs on every visible part is slightly jaundiced, and covered over with an eruption of petechiæ strikingly resembling those observed on John Campbell, and attended with the same fœtor. (See preceding case.) She scarcely notices her child, or attends to its constant cries, though her eyes remain wide open. There is no suck in her breasts; her body and limbs are ra-

ther warmer than natural and soft; she appears to be very deaf; tongue loaded and brown; belly costive, full and tense; urine passed unconsciously; pulse 120, not firm.

Prescribed.—Let the head be shaved and washed three times a day with camphorated spirits of wine; a blister to the nape of the neck. Eight ounces of purging mixture with two grains of tartarized antimony dissolved in it, two table spoonsful of which are to be given every half hour till vomiting or purging is excited; an enema in the evening if necessary. Three grains of antimonial powder, and four grains of Dover's powder to be given at bed time immediately after her feet are stuped.

May 4th.—Got no sleep through the night, and lies on her back with little consciousness. The petechiæ are of a darker colour, and the interstices more jaundiced; fætor as yesterday; face flushed; drinks when the fluid is poured into her mouth, though the effort excites coughing. There is a covering on the teeth of carneous colour and consistence; blister has risen well; three whitish and frothy stools from six doses of the purging mxture, and an enema, which discharges, as well as the urine, were passed unconsciously. Pulse 100, and firmer than yesterday.

Prescribed.—Three grains of blue pill, and one grain of antimonial powder every sixth hour, and an enema in the evening; the blistered part to be

dressed, and the washing of the head to be repeated; a blister to be applied over the right hypochondrium; two table spoonsful of camphorated mixture and one of fresh barm to be given every third hour.

May 5th.—Got some sleep through the night, and at present her eyes are closed, but opens them on being spoken to, and seems more attentive to external objects; no fœtor remains; three bilious stools; urine still passed under her; drinks freely, and without its exciting cough; petechiæ of fainter colour, and interstices more jaundiced; the cheeks, especially the right, is occupied with a circumscribed flush. Pulse 90, and firm; other symptoms as yesterday; blister has risen well.

Prescribed.—Let the blistered part be dressed, and the other remedies, as directed yesterday, be be continued. L.

May 6th. Slept for several hours through the night lying on her back; two copious bilious stools; petechiæ and intervening jaundice much diminished. Pulse 80, and firm.

Prescribed.—Let the remedies be repeated.

Under this plan of treatment, varied according to circumstances, some amendment marked each succeeding day until the 14th of May, when she was convalescent. This convalescence was attended, as I have often witnessed in other instances, with partial aberration of mind, which lasted for several days. In this instance the patient falsely

imagined that she had been a domestic in my family, and still expresses great anxiety to return home to nurse my child, which she says she suckled at the time when her illness commenced. She has no recollection of the manner in which her illness commenced, or of any thing since, except the prickly sensation round the waist, which her friends stated on her admission she had complained of at the commencement of her illness.

The emaciation which took place during the course of her fever, and the coriaceous appearance of the skin, were now also very remarkable, and the more so, on account of her having been so plump and fat at the time of admission.

May 26th. Though recovering daily since last report, both as to mind and body, and though her natural rest and appetite had been fully restored for several days, this patient was not able to get up out of bed until this morning; the progress of her convalescence, as well as of her illness, being very like that observed in Campbell's case.

OBSERVATIONS.

I have selected these cases, male and female, as exquisite specimens of the purpura contagiosa, which is so often found to prevail amongst the patients affected with typhus admitted into our hospital, and from the frequency of it at some seasons, it may, perhaps, be deemed a distinguishing feature

of the typus fever of this country from that of Great Britain, inasmuch as it is stated by Dr. Bateman that such an efflorescence is very rarely seen in the Fever Hospital in London* whilst under his superintendance; and I do not recollect seeing that particular kind of petechiæ in the Edinburgh hospital during the years of my attendance there.

The colour of this efflorescence is, at some seasons, especially in Autumn, when bowel complaints prevail, and in some patients disposed to intestinal or hepatic disease, much deeper than it appeared in the cases given above, and the darker the petechiæ† are in general, the more unfavorable I think should be the prognosis. I may further remark that when such forms of purpura occur in typhus fever, especially if accompanied with emaciation, the patient (as in the exanthemata) is rendered much less liable, indeed in general I believe he gets immunity for the future from a similar attack.‡

As I shall briefly resume the consideration of typhus fever in treating of certain stages of the late influenza in this country, it would be superfluous to dilate farther upon the preceding subject.

* See his "Practical Synopsis," page 116.

† See Doctor Barker's Report of the Fever Hospital and House of Recovery, Cork-street, for the year 1818.

‡ Purpura Maligna of Sauvages, spec. 3.

CASE VI.

The following case was admitted into in Sir Patrick Dun's Hospital. Notes of it, and of the subsequent dissection were taken down in writing by Dr. Osborne, with whose permission I have introduced them here.

November 19.

" Tobias Barry, æt. 13, the skin sprinkled over with numerous small maculæ of the colour of port wine, accompanied by a constant hæmorrhage from his gums, and a soreness in his throat. Pulse 132, weak; bowels natural. The hæmorrhage has lasted more or less during the last week, and was thought to be the effect of a fall. The maculæ were not observed till yesterday.

20*th.*—*Apl^r. inter scapulas ves^m.* ℞. *Acid sul dilut Tinct. digit. aa* ʒi. *Syr. simp.* ℥vi. *Aq. cinam.* ʒii. *mucil. gum arab.* ℥iii. *M. Sum.* ℥*ss. quater in die.*

21*st.*—Maculæ of a brighter colour. Pulse 124; he is reported to have had two fainting fits; no dejection.

℞. *Olei Ricini* ℥*ss. Tinct. Sennæ* ℥ii. *statim. Cont. Mist. acid. Cap. Pulv. Ipecacuanhæ gr.* ii.

22*d.*—Maculæ same as before; an offensive odour is perceived about him; respiration impeded, and accompanied by a hoarse cough.

℞. *Muc. gum arab.* ℥iv. *Aq. menth. pip.* ℥i. *Vin. Ipecac.* ʒii. *Syrup.* ʒvi. *M. St.* ℥ss. *tertia q. q hora. Haust. effervesc. quater in die.—Omit. cætera.*

23*d*.—Hæmorrhage rather diminished. Died this morning at five o'clock, without any violent symptoms."

DISSECTION.

"On examining the spots on the skin they were found to be produced by blood poured into the substance of the cutis, and not effused on its surface, or under the cuticle, as has been supposed. Spots, precisely resembling in appearance and mode of formation were found on the pleura substance of the lungs, the pericardium, the surfaces and interior of the muscular substance of the heart, in the abdominal muscles, diaphragm, and all the muscles that were cut through in the course of the dissection, in the peritoneum, the substance of every part of the alimentary canal, and on its internal surface. Very few spots were found in the liver, kidnies, or spleen; and the latter organ was rather more firm than usual, and slightly enlarged, but its texture and colour perfectly natural. The bladder of urine had suffered most from the disease, the blood having been effused so largely into its substance that the internal tunic was elevated into a number of regular

dark coloured folds, which were so prominent as to materially diminish the cavity of the bladder. Some liquid blood was also found in it. With the exception of the above morbid appearances the viscera were perfectly healthy. A very few spots were seen in the integuments of the cranium and dura mater, but none in the substance of the brain. The blood throughout the body was remarkably fluid; and in place of any fulness of either the venous or arterial system there appeared to be rather a deficiency of the circulating fluid."

J. O.

OBSERVATIONS.

This interesting case of Purpura, and subsequent dissection, appear to me to afford an excellent epitome of many of the most remarkable circumstances detailed in those which preceded it, such (for example) as the situation of the purpura in the integuments, their general diffusion over unconnected parts, and the total absence of organic derangement, beyond that produced by the infarction of the blood arising out of vascular debility or suspended function of the part.

Viewed too in contrast with Dynamic Purpura, it exhibits more clearly how much such forms depend on a dissolved state of the blood, as well as relaxation of the vessels allowing of its trans-

mission through minute exhalants, which were in health permeable only to colourless fluids.

Such a condition of the blood being produced so rapidly, and supposed to be the effect of a fall, would seem somewhat analogous to what takes place in the blood of persons who were poisoned or of those killed by lightning, in whom it is generally found remarkably fluid, accompanied with a tendency to ecchymosis and general hæmorrhage.

OF THE

TREATMENT OF

DROPSY AND PURPURA.

IN a retrospect of my observations on the cases in the order which they have been presented, I perceive that many of the practical remarks which I had intended for this place have been anticipated, and in considering the *ratio symptomatum* on the principles I had adopted, the *modus operandi* of the medicines employed could not be well kept out of sight. By referring, however, to such practical remarks, those to be made now may be more brief, and also be brought more immediately connected than could otherwise be with the cases themselves, on which I rely chiefly for illustration of my first principles, as well as of the observations which they have suggested.

" Tria sunt munera Artis tuendæ valetudini " sanæ; nempe conservare sanitatem præsentem; " morbos in temperie ut in semine latentes, et facile " excitandos, præcavere; vitam disponere ad lon-

" gævitatem,"* as the first and second clauses of the preceding division of ΥΓΙΕΙΝΗ by Boerhaave appears well suited to the application of the general principles on which the treatment of the detailed cases was conducted, I shall here adopt these two clauses of that division, commencing with the preventive part, and not the least important, more especially as it will embrace not only the means of prevention to be opposed to the primary accession of the disease, but also those intended to correct that well known tendency to relapse which is so much to be guarded against after the removal of dropsical or purpural effusion.

Under the second head, or remedial part of treatment, I shall confine myself chiefly to those remedies employed in the cases of either the preceding or succeeding portion of this work, as the latter, which will be given to mark the course of the lately prevailing influenza have been treated on the same principles, and in some of its stages will be found to have many symptoms in common with those which have been already under consideration.

* Vid. Institutiones Medicæ, &c. &c. Hermanno Boerhaave, p. 387, Edinb. 1773.

PREVENTION.

SECTION I.

Amongst the means of prevention, none appear to me of more importance than regulations with respect to diet, exercise, and indeed the general means of preserving the function of digestion in its healthy state, whether the opposite nature of the exciting causes of the dynamic and adynamic forms of Dropsy and Purpura, or of their own distinguishing symptoms be regarded.

Indulgence of an extraordinary appetite for solids or fluids, or sometimes a morbid desire for pernicious articles of diet, as well as languor, or aversion from employment of the mind or body, have been long noticed, not only as exciting causes, but actually as the symptoms of approaching dropsy, and have not escaped the sagacity of the great Roman satirist:

> Crescit indulgens sibi dirus hydrops,
> Nec sitim pellet, nisi causa morbi,
> Fugerit venis, et aquosus albo,
> Corpore lanquor.

The different nature of dropsies likewise suggests very important considerations in prescribing means of prevention in these disorders, but particularly in dropsy. This may be illustrated by a

reference to the cases of A. Haslet and M. Horish in the preceding pages. In the first, the diabetic overflow which led to the hydropic effusion appeared to be directly connected with the condition of the supply from the lacteal and lymphatic system, and by remedying the obstruction given by inflammation to the previously increased aqueous secretion by the kidneys, the dropsical effusion was removed; afterwards by limiting the quantity of drink, and treating the disease according to Dr. Rollo's plan, the return of the dropsy was prevented, and the diabetis itself ultimately cured. That patient having been dismissed from the hospital on the 14th of May, free from any observable complaint, far exceeding my hopes, as expressed in the last Report made when that part of the work was preparing for the press. Her flesh and strength being restored at the time of her dismission, and the ovarial tumour being so completely within the pelvis as not to be discovered on examination by external pressure with the hand.

In such cases as that of Anne Haslet, which for the sake of distinction might be denominated diabetic or chylous dropsy, the limitation of the quantity of drink, and the means of restoring a healthy condition of the chyle, appear to me to demand the first care in the preventive, as well as perhaps in the curative treatment also.

On the other hand, in such cases as those of M. Horish, and which may be called hepatic or

melænous, in which the dropsy was evidently connected with intestinal and hepatic derangement, and its removal, with the restoration of the functions of those organs by the separation of what appeared in the dark alvine discharges, prevention or cure might be promoted rather than retarded by free dilution, especially if the fluid consumed by the patient should contain articles of a detergent and aperient quality.

I am the more desirous to dwell on the suggestions offered by these two cases, as they appear to me to lead to very important considerations in the employment of those mineral water, whether artificial or natural, which are resorted to for the prevention and cure of dropsical complaints; persuaded, from experience, that these waters are almost always injurious when drank in the diabetic dropsy, which is connected with the state of the supply to the blood at its first sourse.* For I have known them sometimes to increase, and in other instances to confirm that kind hydropic diathesis.

It is chiefly in the melænous dropsy, or that arising from want of due separation in the liver of the hydrocarbonum principles of the blood, that mineral waters will be found advantageous; but even then I think they should be rather employed as adjuncts to other means, than be totally relied on for the restoration of that healthy sanguification in the intestinal and hepatic

* Vide page 7.

system, on the obstruction of which process the form of disease under consideration has appeared to me to depend.

Should I be enabled to publish another part of these observations, as I contemplate, it is my intention to prosecute the subject of the preceding remarks much farther, especilaly as they regard the use of the sulphureous and chalybeate springs in the neighbourhood of this city, the virtues of which, if resorted to by those labouring under hepatic or melænous dropsy, would, in my opinion, be found as salutary as those in any other part of the world.

It is not merely, however, to the limitation of excess in the use of either solids or fluids, to which those disposed to dropsy or to its ancillary state of obesity are inclined, that they should be warned against, but also against the habit of eating fast, induced by keen appetite and a weakened stomach, often the first symptoms of approaching dropsy.

By indulgence in that morbid habit of swallowing food without sufficient mastication and due admixture of saliva with it, I have known those diseases of digestion, on which dropsy and purpura so frequently depend, to proceed to an incurable degree; but on the other hand, on succeeding in convincing the patient of the vital necessity of resisting this pernicious habit, a task not always an easy one, I have often had the

atisfaction of witnessing the most beneficial consequences; the effect indeed has often directed the patient himself to the cause, and thus impressively admonished him :—

> Ut teipsum serves, non expergisceris? atqui
> Si noles sanus, curres hydropicus.

The first stages of the leucophelgmatic dropsy may be very generally traced, I believe, to some morbid change in digestion, and from it, the train of causes which disturb the animal economy, may be followed; the chyle not being duly prepared, so as to be convertible into healthy blood by the sanguifying processes of the lesser and greater circulations, the secerning organs must be rather disturbed than promoted. It must therefore be of the first importance in the treatment of diseases of digestion or of sanguification, to regulate the quantity and quality of the food so as not either to interfere with a due preparation of chyle, nor to produce it in such quantities as to overload the organs of sanguification, and thus disturb their functions.

To enter frather on the principles of dieteticks, or into the detail of articles which might be arranged under the heads of *juvantia* or *lædentia*, as these regard digestion, would far exceed the limits intended. On this subject, however, the reader may find much valuable information in a condensed manner in the institutions of Boerhave, already quoted, especially in the paragraphs of

that work from the 1019th to the 1048th inclusive; and it is ably and fully treated of in more modern works that have become distinguished and well known for their intrinsic merits.

There is another branch of the means of prevention connected with the former, but far more extensive, as it would involve the medical treatment of the numerous acute and chronic diseases which terminate in dropsy, each of which might demand a separate treatise, especially those affections of the intestinal and hepatic systems, which are so very frequently found connected with hydropic and purpural effusion, but on every part of this branch there are modern works of many living writers, which as they ought to be, are in the hands of every respectable physician.

In concluding this section it may be further remarked, that as some of the remedies arranged under the next, may sometimes be employed in prevention, as well as in the cure of diseases, this will be occasionally noticed in the succeeding observations.

The regulations of diet, as well as the doses of medicines in the cure of the diseases under consideration, being important, the dietary of the Fever Hospital and House of Recovery in Cork-street, will be given in an Appendix, together with the general list of the formulæ of medicines in use there, in order that the detail of the treatment which I subscribed for the patients in that institution, whose cases appear in this work may be better understood.

OF THE CURE OF

DROPSY AND PURPURA.

SECTION II.

Blood letting, general and local.

Venesection, placed at the head of remedies for dropsy and purpura, would have startled a medical reader before Dr. Blackall's publication on that subject, much more than at present, and still notwithstanding his able indications, and the splendid illustrations of them published by succeeding observers, there is, and I think justly, great hesitation amongst the practitioners of medicine to adopt it, as one generally applicable to the cure of these diseases.

There can be indeed no question amongst the experienced that two states of these diseases exist. The one connected with muscular power in general, and vascular power in particular, by which the denser parts of the blood, whether colourless or red, are either forced into the minute vessels previously impervious to them, or thus ex-

travasated, the other attended with debility both general and vascular, during which serum or coloured blood accumulates in the exhalent vessels, or is poured out in morbid excess by them into the cellular substance, where it collects from the absorbents participating in the general debility. In the former state bloodletting, when cautiously employed, is highly beneficial ; in the latter it is as generally injurious.

Led by such obvious characteristicks, I have been induced to denominate one state of these diseases *dynamic*, and the other *adynamic*. I have likewise endeavoured to show by experiments on the blood, and by cases I trust not entirely without success, that both the hydropic and hæmorrhagic effusions depend partly on the condition of the circulating mass itself, and shall now try the soundness of these first principles by the unerring test of their application to the consideration of the means of relief, or of cure in these diseases.

The chief points to be ascertained in employing venesection in dropsy and purpura, appear to me to be first, the nature of the existing causes, whether such as would affect the quantity or quality of the circulating mass, either by obstruction to its natural outlets, or injury of any of the functions by which its healthy state was preserved.—Secondly, that the state of muscular power, or capability of vascular action, as evinced by capability of exer-

tion, and by a vigorous resistance in the vessels to the morbid accumulation of their contents be not materially impaired.— And lastly, that the patient expresses relief from the blood drawn on the preceding indications, that it be firmly coagulated, and if buffed, it will afford additional grounds for hope of further relief by the repetition of the remedy.

The indications therefore of blood-letting in dropsy and purpura should be, strength of the patient not materially diminished, increased vascular action evinced by strong pulse and increased temperature, relief of oppression, and of pain immediately felt after the operation, and the subsidence afterwards, though not for a few hours perhaps, of the dropsical swellings.

These principles and indications may be recognized in the treatment of the two complicated cases of dynamic dropsy, and of dynamic purpura, which have been detailed, and are now referred to for farther illustration.

The precautions suggested by the cases of dropsy and purpura, where bleeding was employed, deserve attention here. In the second case of dropsy and purpura combined, a temporary cessation of the pulse succeeded venesection; it might therefore be adviseable, in such instances, either to take blood very slowly from a vein, or by the application of leeches, or cupping to the external parts, assisted by alterants, rather than to risk a

similar remora, and perhaps coagulation of a part of the sizy mass in some large blood vessel, or in the heart itself, and thus lead to fatal consequences.

Another caution in blood-letting was suggested, both in the dynamic and adynamic cases by the first effects of bleeding on the extravasated fluid, which during that evanescent vascular excitement that succeeded the operation, was found considerably increased; care should therefore be taken in prescribing bleeding in dropsies, where the cavities engaged contain a vital organ, that the extravasated fluid be not in such excess as that by any momentary increase it might overwhelm a vital function, and thus cause sudden death. When such a cavity appears distended by hydropic effusion of the dynamic kind, I have thought it always advisable to precede venesection by topical bleeding and blisters, and by the internal use of digitalis and antimonials, the *modus operandi* of which will be presently considered.

These remarks obviously apply principally to dynamic dropsy and purpura, and the practical suggestions respecting blood-letting in the adynamic form of those diseases, especially when gangrene threatens, may be again considered when treating on succeeding remedies, which I believe often to be chiefly useful by changing the adynamic to the dynamic form of these diseases.

In concluding these precautionary remarks on

blood-letting in dropsy or purpura, I may further observe, that in all cases in which that remedy is prescribed for the relief of these diseases, the finger of the prescriber should be kept constantly during the operation on the radial artery, that its effects on the powers of circulation may be thus immediately ascertained, and that its safety or danger may be thus decided upon. If the pulse remains firm the quantity of blood may be allowed to flow on to ten, twelve, or fourteen ounces, according to the urgency of the symptoms, but should be stopped as soon as the vigour of the circulation begins to fail.

Local Blood-letting.—This remedy, though subject to many of the remarks which have been made on the indications, and on the precautions in the use of it, when employed so as to produce a more general effect on the sanguiferous system, yet may be prescribed with advantage in cases of local congestions or determinations of blood, where bleeding from a large blood-vessel might not be indicated or would be prejudicial.

The abstraction of blood by cupping, or by leeches applied as near as possible to the vessels affected with local congestion, is found highly beneficial in most cases, but in none more so I think than when a tendency to effusion, whether hydropic or purpural, is connected, as in many of the foregoing cases it appears to have been, with the condi-

tion of the intestinal and hepatic vessels; in all such cases, and indeed in some others in which the congestion and derangement of the sanguiferous system were much more general, I have witnessed great benefit from the application of leeches to the verge of the rectum, especially to the piles themselves, if such excressences could be detected; and the rationale of this remedy, on the principles I have already expressed, is sufficiently obvious.

The *modus operandi* of blood letting in general in removing dropsy and purpura, has received very important illustration in the late able publication of his Pharmacologia by Dr. Paris,* and especially by the report of the experiments of M. Majendie on this subject; and I beg leave to refer the reader to that work for the most satisfactory information published on that question with which I am acquainted. Having never enjoyed the advantages of seeing that work until the preceding pages of this were printed, I deem it not merely interesting to myself, but additional proof of the soundness of the principles suggested by my practical observations, that independently of any knowledge of the train of investigations which had been pursued differently and separately by others, a very general coincidence with them may be perceived in the inferences I have deduced.

The experiments of M. Majendie, and Dr. Paris's observations, establish clearly I think that

* See Pharmacologia, &c. &c. by J. A. Paris, M. D. F. R. S. F. L. S. &c. &c. fifth edition.

the removal of dropsical effusion by venesection, arises chiefly from the relief of that excessive congestion found in these experiments to be incompatible with absorption; in some instances however I am persuaded, and especially in dropsies, accompanied with very sizy blood, that this remedy operates also by tending to restore the function of sanguification in the liver and lungs, and thus counteracting the lentor by which the action of the exhalents as well as of the absorbents had been clogged; in this secondary effect, it may I believe be essentially aided by some of the remedies to be treated of in the next section.*

It may be seen at the 41st and 42d pages of the second volume of the Transactions of the King's and Queen's College of Physicians in Ireland, published A. D. 1818, that I entertained the same views of the *modus operandi* of blood letting in dropsy, both at the time of that publication, and long before it; I then stated my opinion to be, "that the action of blood letting in "such cases was two-fold, first, by lessening the "mass of blood under such circumstances the pa-"bulum of disease, and secondly, by disincum-"bering the vascular system."

*I perhaps should hesitate to employ nomenclature, against which I know great prejudices exist, but I cannot otherwise express my meaning as well. I would not be understood however to adopt the false principles also of the humoral pathology; for though I suppose that a morbid state of the fluids may take place, and disturb or control vital action, I do not thus accede to the opinion that the motion of the

SECTION III.

Blisters, Antimonials, Mercurials, Digitalis, &c. &c. &c.

Although it is with a plea of voluntary submission to a self-urged charge of culpable remissness, it is my duty here again to state, that this book was actually printed, as far as the preceding page, before the useful and elegantly written Pharmacologia of Dr. Paris was put into my hands; but whilst I have to express my deep regret at not having before had the great assistance which I might have derived from these volumes at every step, it is highly satisfactory to me to find, that in many instances the principles which I had adopted in my previous enquiries accord with those of that able writer, principles which may be recognized in their application in several short treatises of mine, published at various periods during the last twenty years.—For example, my opinion of the great importance of that avenue by the *vena portarum* to the circulating current, was satisfactorily decided by experiments which I made with a

fluids in the animal economy is subject, as in a mere machine, to the laws of hydraulics, which has been justly deemed to be the chief source of these errors which have brought discredit on the theories of the great Boerhaave himself, and on the calculations of all those who like him did not sufficiently consider how much "physical laws are counteracted by the superior powers of the living principle."*

* See Treatise on Surgical Anatomy, by A. Colles, Professor of Surgical Anatomy, &c. &c. &c. Preface, page v.

view to that subject more than twenty years past, assisted by Dr. Colles, the distinguished professor of anatomy and surgery, and the result of these experiments, which was first published in our Transactions in the year 1818, may be found repeated at the 8th and 9th of the preceding pages. These experiments were made on a dog, and I beg leave to submit that it might be advisable that the experiments which Dr. Paris (page 127) recommends to be instituted, for the elucidation of this subject, should be made on carnivorous, as well as on herbivorous animals, as I am persuaded that a comparison between them would be found mutually to illustrate the results. On the other hand, from not having previously read the Pharmacologia of Dr. Paris he will, I trust, excuse the freedom of such remarks I have made on the facts I had collected, as do not entirely accord with the views he has taken, and especially with regard to the share which I suppose the state of the circulating fluids has on that of disease, on which subject I have adopted, in some degree, the opinions of Dr. Cullen, which he rejects.*

By comparing the opinions of Dr. Cullen, as expressed in his *Materia Medica*, with those in his Practice of Physic, a considerable degree of discordance may be detected, and, ingenious and able, as he undoubtedly was, in prosecuting his active enquiries, it could hardly be expected that he could proceed totally uninfluenced by

* Vide Pharmacologia, page 133.

that revolutionary spirit which begun about his time to prevail generally in medical, as well as in all other public discussions, and which has since so universally agitated the human mind; but if the errors of speculation beyond the mere development of facts did not caution me, I should be much inclined to hazard a prediction that when (as it is devoutly to be wished) this feverish tendency to revolution has subsided, and reason is restored to its healthy standard, that then this eminent physician will be recollected with much more respect, and be more esteemed, as the writer of his *Materia Medica*, than as a theorist in his practice of physic.

Deeming these observations a fit introduction to the remaining list of remedies, I shall avail myself of the aid the Pharmacologia affords, particularly by referring to it for the ample information to be derived on each article, only adding, as briefly as I can, such remarks as my experience suggests.

Blisters. For a full and satisfactory account of the *modus operandi* and efficacy of epispastics, see the 193d and 4th pages of the Pharmacologia. The following remarks are offered, being immediately connected with the subject of this work, and the result of my experience.

The utility of blisters applied near the affected part in pleuritic and cephalitic complaints, needs no additional testimony, for their beneficial effects are established on the best and most satisfactory authority, and I have only to add some observations

on the remarkable efficacy of this remedy, when applied over the hepatic region, in tendencies to dropsical or purpural effusion, connected with disordered function, or even sometimes perhaps with deranged structure of the liver.

In almost all the cases of dropsy and purpura that I have detailed in the preceding pages, and in which the connexion between those diseases and the state of the biliary system was manifest, blisters to the right hypochondrium were employed with the most decided benefit, as may be seen by consulting the cases in dropsy, particularly those of Reilly and Horish, and in purpura, those of Moore and Rourke.

The symptom accompanying such effusive tendencies, which has led me chiefly to connect them with diseased function of the liver, and thence to this remedy, demands particular notice on that account, and also as one always indicating extreme danger, and sometimes offering a fatal prognestic.

This symptom is either obstinate grass green vomiting, such as attended on some of the worst cases both of purpura and dropsy admitted latterly into our hospital, or the still deeper green alvine discharges which so generally accompany hydrocephalus, and effusions on the brain in bad fevers.

As the cases which have afforded me the instruction that I wish to record will be the best vehicle of it, I shall briefly refer to a few of those most strongly marked with symptoms

of effusion on the brain, and particularly by the grass green colour of the alvine discharges, in which blisters applied to the right hypochondrium appeared to me eminently beneficial. In all those instances indeed, this remedy was aided by others on which I have long relied* for their sarbefacient power, but I had never seen them so effectual on occasions of equal urgency unaccompanied by the blister so applied.

A remarkable case of this kind may be found detailed at the 37th and subsequent pages of the second volume of the Transactions of the College of Physicians in Ireland; and I shall add only a brief history of two others, very similar, that happened within the current year, in which that remedy was employed under my care, and which terminated successfully.

The first of these was that of Miss M. Hughes, six years old, a full and florid child, the younger daughter of a gentleman and lady living in Aungier-street, who had lost the elder by hydrocephalus, as ascertained by dissection.

From Mr. Stringer of Aungier-street, who was called to see the subject of this case on the 29th of Jan. 1823, I learned that she had been complaining of headache and drowsiness for some days previous to that on which he first saw her, on which day she was attacked with epileptic fits, that succeeded

* See Dublin Medical Essays, edit. anno domini 1806.

each other with short intervals to the number of near twenty each day and night, accompanied with high fever, costive bowels, and full belly. For these symptoms he had directed calomel and other purgatives, leeches to the temples, a warm bath, and a blister to the nape of the neck.

On the 30th, when I first saw her, she lay insensible to external impressions, the face distorted and drawn to the left side; her hands were closed together by spasm; the right side apparently paralytic, the left still twitching with convulsions, from a fit of which she had just recovered. There was considerable strabismus of both eyes; the skin hot but moist; tongue loaded and yellow; pulse 150, and very small in the left arm, but none could be distinguished in any part of the right side. Except in the intervals of freedom from general convulsions the jaws were locked, and even at the time of these intervals swallowing was difficult. The right hypocondre full, tense and sore; stools frequent, scanty, and of a dark grass green colour.

I directed the head to be shaved, the leeches to the temples to be repeated, the calomel with the addition of James's powders to be continued, and a purgative mixture of infusion of senna and Epsom salts to be given, assisted with turpentine enemata, every third hour till the bowels were fully freed; twelve leeches to the right hypocondre.

Visit 2d.—On the 31st I learned that the

bowels had been well freed through the preceding night; the discharges of a grass green colour. The leeches had caused a copious discharge of blood both from the temples and from the right side, the convulsions had been somewhat less frequent, but otherwise there was very little change from the state in which I had first seen her. No pulse in the right side.

I now directed a repetition of the calomel and James's powders, a warm bath at the temperature of 98° for ten minutes twice a day, in which the child was to be immersed up to the chin, whilst a refrigerating saline mixture was to be poured slowly on the head.

A large blister to be applied over the right hypocondre.

Visit 3d.—On the 1st of February I learned that the epileptic fits had been much less frequent, and at the time of my visit the child was manifestly much better, quite free from convulsion or strabismus, was much more animated, and the limbs on the right side, though still without pulse, seemed equally active with those on the other. Stools not so frequent but more copious, scybalous and yellow.

Prescribed.—The calomel and James's powders to be continued, with the addition of six grains of Dovers powders to each dose; the discharge from the blistered part on the right side to be kept up by issue ointment.

An infusion of green tea, made palatable with sugar and milk, to be given along with the other drinks; and the purging mixture and turpentine enemata to be repeated.

During the three successive days, under the above plan of treatment, this child recovered gradually till the 4th of February, when she was apparently free from complaint, though still the pulse could not be felt in the right arm; and even now, on the 20th of May, no pulsation can be detected in that arm, notwithstanding that the child has remained free from complaint, and has recovered every other external appearance of health.

The other case which I have to relate, being in most circumstances very similar, may be still more briefly noticed.

On the 10th of the present month of May 1823, I was called on to visit the infant child of Mr. and Mrs. Bradshaw, respectable English manufacturers residing in Cork-street. This child, sixteen months old, had been previously visited by Mr. Leech of Parliament-street, who directed aperient powders, a warm bath, and a blister to the neck. It had several epileptic fits in the course of the three preceding days, was then lying insensibly, with strabismus of the eyes, and clonic spasms of the hands; the mother said it sucked very weakly for two or three days before, and the remaining power seemed now totally suspended. The stools were the colour of cantharides, and there was obvious fulness in the right hypochondre.

The very same remedies, only varied according to the difference of age, were resorted to in this, as in the former instance, but with still more rapid success; this child's recovery being complete in the course of the three succeeding days. She now remains without complaint or apparent disorder in her constitution.—See also the 1st case given in the preface to this work, which will be found in many respects similar to the former.

Of the beneficial effects of the blister to the right hypochondre, applied in all these cases, I did not entertain a doubt; and am persuaded that the frequent failure of the other means when relied on in cases of similar urgency, will be a sufficient inducement for future trials with that remedy, and which I expect will further establish its efficacy.

The *modus operandi* of this remedy may, I think, be explained according to the principles of this work on which I prescribed it, and may also, I trust, afford still further illustration of the correctness of the views I have taken on the subject, and which may be briefly recapitulated.

The tendency to effusion on the brain, or other parts, connected with green vomiting, green purging, or such other symptoms as denote derangement in the hepatic system, I suppose to be produced in consequence of the function of the liver, either being insufficient to separate, as in health, the denser parts of the dark venous blood conveyed to that organ, or of a morbid secretion by the sanguiferous or hepatic system, either of which render

the whole circulating mass less fitted to undergo complete sanguification in the lungs, or to supply the purposes of the greater circulation.

The presence of bile in the *primæ viæ*, though not without its uses there, appears to me to be chiefly important, as a proof that that part of the process of sanguification which should take place in the hepatic system is duly performed, and hence that the distress and indisposition which attend on hepatic diseases probably do not arise merely from want of bile, but from want of that change in the hepatic blood which the presence of bile would indicate.

A blister, therefore, applied to the right hypochondrium, appears to me to act in a three fold capacity, as it does when applied to the thorax in pulmonary diseases. First—as a stimulant applied as directly as possible to the vessels affected in the diseased function, it increases their activity. Secondly—by thus interrupting the course of diseased actions, the inherent vital and corrective power tending to the recovery of the function, is less obstructed. And lastly, the function being thus restored, a fit pabulum for circulation, and for the various secretions, is provided.

In this way I think it is that the superior advantages of mercurial or antimonial friction, or of acid baths applied to the right hypochorium, over those applications to other parts, may be accounted for; and the effect of the discharge

produced by the blister, I suppose it to be chiefly useful in relieving that plethora incompatible with absorption, as was stated respecting blood-letting.

With respect to the green colour of the alvine discharges and green vomiting, which I have stated to be a frequent symptom of dropsical and purpural effusion, the reader will find some very judicious remarks in a note at page 195 of the Pharmacologia, which I beg to refer to. The inference, however, which I have deduced from my own observations, are somewhat different from those in that note, inasmuch as I am persuaded that, although acid in the duodenum and stomach, is necessary to give the green colour to the bile; yet that the fluid separated from the blood under a disordered function of the liver, and which is conveyed from thence by the biliary ducts, must be also very different from that in health; for without some morbid change, the accidental admixture of an acid would not produce a green colour; such as Doctor Heberden in his commentaries asserts, he found in the urine of a certain jaundiced patient, which was, when first passed, of a deep yellow. I am farther warranted, I think, in this opinion, by the absence of such green colour, unless accompanied by urgent symptoms of disorder in the hepatic system. I this colour was produced simply by mixing an acid with mere bile, that symptom must

be as frequent as acidity in the *primæ viæ*, which is well known not to be the case.

ANTIMONIALS.

Before the practice of bleeding was ventured on in certain conditions of dropsy with the same boldness as at present, I deemed the various preparations of antimony, especially Dr. James' Powders, to be the most efficient agents in the cure of almost every form of dropsy; and I still hold them as the most generally applicable for the removal of that disease, and especially as they are capable of being combined or administered with other remedies so as to increase their influence, or direct them to particular objects.

The operation of antimonials indeed appears to me to be manifold, whether as to its primary and stimulant effect, or its secondary and sedative qualities.

The first effect of it extending to every secreting organ, and thus restoring their functions, renders them well suited to the cure of dropsies, inasmuch as their stimulus affects the excretories as well as the absorbents, both of which may be esteemed secerning vessels, inasmuch as the former carry into the circulating

mass, what is probably no less necessary to its healthy condition than the separation of those parts is, which pass off by the excretories.

This view of the agency of antimonials tends to show their useful application in the Dynamic as well as Adynamic forms of the diseases of vascular effusion, connected with disordered functions; besides, these remedies appear also to have some effect as alterants on the blood, as mercury has, and equally likely with it, I think, to find ingress to the circulating fluids themselves. I have therefore combined it, and I believe advantageously, with mercury in dropsies with sizy blood, especially when connected with hepatic disease.

Other medicines may also be combined with antimonials, so as to direct them to a particular part. Thus, in cases where the object is to increase the activity of the intestinal canal, they may be made adjuvant to the purgatives employed with that intention.

In many cases of dropsy, when bleeding is indicated, the efficacy of that remedy may be very generally promoted by the aid of antimonials; and in instances of Adynamic Dropsy I have not unfrequently, by combined formulæ of antimony and mercury, so changed the nature of the morbid condition of both fluids and solids, that bleeding became indicated, and was found effectual.

In the cure of certain stages of dropsy too,

which tonics were indicated, but when their employment excited fever, as the preparations of of cinchona and of iron sometimes do, I have found that inconvenience to be frequently corrected by the addition of antimonials.

The secondary and sedative effect of antimonials, a property which they have in common with digitalis and other nauseating medicines, farther increases their importance in the cure of dropsy; and perhaps there is no problem involving even the *modus operandi* of medicines that is more difficult of explanationthan the effect which some of them have, of retarding violent actions in the sanguiferous system in general, whilst they increase rather than diminish that of the absorbents.

The sedative effect of antimonials, I believe arises from two causes;—first, by the nauseating impression made on the stomach; and secondly, by relieving the distension of the vessels which, as was stated, when considering the *modus operandi* of blood-letting, would be incompatible with absorption, or with general vascular action.

In the only volume of the Dublin Medical Essays published which was printed in 1806, some cases of hydrocephalus are detailed, in which I had found the sorbefacient power of James's powder to be very remarkable; and in some observations which I added, it may be seen that the principles which guided me in

the employment of these remedies in lethargic diseases, and in those connected with vascular effusion, were the same with those expressed in this essay, and that I then offered the same explanation of their *modus operandi*. To these cases and observations I have taken leave to refer in several publications since; and I may be indulged in, I trust, a laudable ambition of laying claim to the merit of being the means of restoring a remedy of such acknowledged value, more especially as several writers, some of them even eminent, have written since, and spoken most favorably of it, who do not appear to have been at all aware of my previous publication on that subject

MERCURY.

It is well known that some preparations of this mineral may be administered alone, or combined with other medicines so as to direct its stimulating effect, in the first instance, to the excretory organs and that thus it may be made purgative, diuretic, sudorific, or expectorant. When employed with such intentions, it is usefully applicable to the cure of many various forms of dropsy and purpura; it possesses however, other qualities besides those of mere stimulants which extend the

scope of its utility in some forms of those diseases, whilst they limit it in others.

These other qualities which I mean are, that of entering and changing the condition of the mass of blood itself, and of interrupting such a morbid train of actions in the functions of the part affected, as habit, in proportion to the time of its continuance, had tended to establish.

When the intention is to promote or increase the alvine discharge, mercury, under the form of calomel, may be usefully employed, combined with jalap, scammony, gamboge, or elaterium, according to the degree of the purgative effect which the prescriber proposes, and under the same form its stimulus may be combined with squills or antimonials, so as to increase the sorbefacient expectorant sudorific or diuretic effects of these remedies.

It is however in those cases of effusive diseases, connected with sizy blood arising from imperfect sanguification in the lungs or in the liver, but especially in the latter, that mercury can be beneficially employed in such a manner as to enter the sanguiferous system, and thus influence the condition of the blood itself, as well as that of the function engaged. When administered with a secondary intention, mercury, reduced to an oxyd by trituration, given internally, or by external friction, is to be preferred; and in cases of laxity of the bowels, may be advantageously combined with opium.

In that form of dropsy which I have ventured to denominate melænous or hepatic, mercury, administered with a view to its effects in attenuating the blood, and altering the morbid condition of the function of the part, is chiefly applicable; it is generally found most useful when employed by friction over the region of the liver itself, and may be advantageously alternated with chlorine or acid baths, remedies which I have generally found most useful when employed in this way.

DIGITALIS.

The sorbefacient and diuretic qualities of the various parts of this plant, probably depend chiefly on that peculiar stimulus to which vital power is susceptible when any strong impression is made on the stomach, with which every other organ important to life is found to be so sensitively sympathetic; this stimulant effect may be directed, like those of mercury, to particular organs, so as to excite their functions, and thus be made purgative, diuretic, expectorant, &c.

Like mercury, this medicine appears also to have other effects, besides those of stimulants, and still more distinct than in the former instance, which have rendered it a still more important agent in the cure of dropsies. Such are its extraordinary properties in resrtaining the action of the heart and arteries, properties which have been so ably

investigated and ascertained by Dr. Withering; and secondly, that of entering and attenuating the mass of blood, thus affording to medicine an agency of the utmost moment in the relief and cure of diseases, especially of those, which like dropsy, often depend on increased or inordinate action of the vascular system, arising out of disorganization of the part engaged, morbid condition of the blood, or deranged function of the part.

The employment of digitalis and mercury together, with a view to their mere stimulant effects, which are so opposite in their nature, would be found alike inconsistent in theory, and prejudicial in practice; but on the other hand I feel justified by my experience in stating, that these two remedies may, with certain precautions, be usefully combined, with a view to their secondary qualities, namely, those of entering the sanguiferous system, altering disordered action, and changing the morbid condition of the blood; thus in cases of dynamic dropsy or purpura, with sizy blood, I have combined these remedies together, so that the stimulus given by mercury to vascular power might control the paralyzing effects of the digitalis, and vice versa, and found both mutually contributed to change that morbid condition of the blood which was the main object in view. The utility of digitalis, however, is not confined to cases of dropsy connected with sizy blood, neither is it to those in which mercury may be advantageously com-

bined with it, there being many others in which it may be more beneficially employed alone.

I think it most probable that the properties which fox-glove possesses of retarding the pulse, and thinning the blood, are derived from the bitter part of that plant, as do the analogous effects on the animal economy of other narcotic remedies, such as prussic acid, and other less perilous vegetable bitters, which under due management have been found useful agents for the relief or cure of diseases.

I am inclined also to suppose that a certain quantity of this bitter is necessary in the food of all animals to promote health, digestion, and sanguification, which I believe it does chiefly by its tendency to preserve the chyle blood and derivative secretions in a fluid state; and that it is by the excess of that bitter, and of its effect, unmodified as it is sometimes found in nature, that it acts as poison, the blood of persons who have died from the effects of mineral or vegetable poisons being always found much more fluid than in those whose deaths were produced in a different manner.

This bitter, on the other hand, may, in due proportion, be salutary by preserving the fluidity of the various humours in the animal economy, as salt is known to do in preserving the fluidity of the ocean in temperatures far below the freezing point, an opinion which appears to me so well illustrated in the

Pharmacologia, that I must take leave to copy the following portion of that instructive work.

* " Bitter extracture seems to be as essential " to the digestion of herbiverous, as salt is to that " of carniverous animals; it acts as a natural sti- " mulant, for it has been shewn, by a variety of " experiments, that it passes through the body " without suffering any diminution in its quan- " tity, or change in its nature. No cattle will " thrive upon grasses which do not contain a por- " tion of this vegetable principle; this fact has " been most satisfactorily proved by the late re- " searches of Mr. Sinclair, gardener to the Duke " of Bedford, which are recorded in that mag- " nificent work, the 'Hortus Gramineus Wo- " burnensis.' They shew, that if sheep are fed " on yellow turnips, which contain little or no " bitter principles, that they instinctively seek, " and greedily devour any provender which may " contain it; and that if they cannot obtain it, " they become diseased and die."

I would extend the preceding quotation much farther, but that the work itself is so very generally read and esteemed.

For a full and satisfactory account of the medicines employed in the diseases which are the subject of the preceding remarks, and the best mode of combining and prescribing them, I beg leave to

* See Pharmacologia, page 141.

refer the reader to the works of Cullen,* Young,† Murray,‡ and Paris,‖ and shall conclude this section with a simple enumeration of those articles of the Materia Medica, which may be occasionally employed with advantage in cases of morbid effusion, as purgatives, diuretics, expectorants or tonics; premising however, that though the succeeding columns are arranged according to the most general effectof the articles enumerated, yet that even in their simple forms those under the various heads will be found under certain circumstances to usurp the provinces of each other,—thus purgatives will substitute those denominated diuretics and expectorants, and vice versa, and even tonics themselves, though mostly so opposite in their nature and operation to the class of evacuants, will be found in some instances to supercede, or be superceded by them.

PURGATIVES.	EXPECTORANTS.	DIURETICS.	TONICS.
Aloes,	Squills,	Juniper Com.	Iron,
Colocynth,	Ipecacuan,	Genista,	Copper,
Jalap,	Gum Ammoniac,	Acitat of Potass and	Cinchona,
Gamboge,	Colchicum,	of Ammonia,	Columbum,
Elaterium,	Emetics.	Taraxacum,	Cascarilla,
Nutral Salts,		Turpentine,	Marubium,
Mercurials,		Capaiba,	Iceland Moss.
Antimonials.		Tobacco,	
		Digitalis.	

* Treatise on the Materia Medica.
† Medical Literature.
‡ System of Materia Medica.
‖ Pharmacologia.

PATHOLOGICAL OBSERVATIONS,

&c. &c. &c.

ON THE

EPIDEMICAL INFLUENZA

WHICH PREVAILED IN IRELAND,

AND

PARTICULARLY IN THE METROPOLIS,

FROM THE MONTH OF NOVEMBER 1822, TO THAT OF APRIL 1823, INCLUSIVE.

Δεῖ δὲ καταμανθάνειν την Κατάστασιν τῶν Ωρέων ἀκριβῶς, και Νούσων ἑκάστην·

Hippocr. de Dieb. Judicator. Initio, item, Lib. 3. Epidem Sect. 3.

For the first of the two following Tables I am indebted to Mr. Montgomery, our excellent Registrar at the Fever Hospital and House of Recovery, Cork-street, who at my request, and with permistion of the Managing Committe, took the trouble, assisted by Mr. M'Mahon, to construct it, and fill it up from the registry; and for the second Table I have to thank my friend Dr. Orpen, of South Frederick-street; its contents are taken from the meteorological remarks which he had made daily, during the various periods embraced by the whole of that Table.

TABLE I.

Shewing the number of admissions into Cork-street Hospital in each of the six corresponding months of the following years, also the Aggregate and Average numbers of days in Hospital for said months, and the Average Mortality.

	1819.		1820.						1821.						1822.						1823.			
	Novem.	Decem.	January.	February.	March.	April.	Novem.	Decem.	January.	February.	March.	April.	Novem.	Decem.	January.	February.	March.	April.	Novem.	Decem.	January.	February.	March.	April.
Admitted,	208	186	211	203	276	302	278	282	319	274	266	290	198	235	244	222	196	224	155	188	249	247	287	231
Aggregate number of days in hospital,	3966	3686	3887	3793	4517	4590	5378	5288	5789	4725	4847	4846	3679	4163	4614	4608	3959	4119	3503	4228	4980	4923	5504	
Average number of days in hospital,	14 1-4th	19 3-4th.	18 1-3d.	18 1-half.	16 1-3d.	15 1-6th.	19 1-3d.	18 1-3d.	18	17	18	16 1-3d.	13-1 half.	17 3-4th.	19	20 3-4ths	20	18 1-3d.	22 1-half.	22 1-half	20 1-6th	20	19 1-5th.	
Average mortality,	1 in 27 1-3d	1 in 20 3-4th.	1 in 19 1-half.	1 in 15 1-3d.	1 in 17 3-4ths.	1 in 19 2-3d.	1 in 9 1-half.	1 in 16	1 in 12 1-half.	1 in 8 1-half.	1 in 10 1-5th.	1 in 9 1-half.	1 in 13	1 in 15 1-half.	1 in 13 1-half	1 in 52	1 in 16	1 in 30	1 in 20 5-8th.	1 in 17 1-11th	1 in 9 3-4th	1in10 1-7th	1 in 14	1 in 14 1-5th.

N. B. The month of April for the current year could not be calculated, except with respect to the Average Mortality, owing to the great number of patients that remained in the Hospital from the preceding month.

PATHOLOGICAL OBSERVATIONS

ON THE

EPIDEMICAL INFLUENZA,

&c. &c.

SECTION I.

I HAVE adopted the popular name given at different periods to any remarkable tendency to ill health affecting the inhabitants very generally in certain defined districts or countries, during the prevalence of which the endemic and sporadic diseases of the country are extended, as well as rendered more severe and fatal.

By comparing the preceeding tables, in the first of which the aggregate numbers, the average time of sickness, and average mortality of the patients in the Fever Hospital, Cork-street, during the corresponding months of four successive years, may be seen ; and in the second the state of the weather during the same periods, a very remarkable coincidence may be discovered, which cannot but be highly interesting, not only to the medical enquirer, but also to the political economist.

Had we bills of mortality or abstracts from parish registers, showing, as their name imports, the numbers that have died in any parish or place during certain periods of time, the want of which I have, in other instances,* had occasion to regret, I am persuaded, that not only the great mortality of the period embraced by the foregoing tables, but the coincidence of increased sickness, with the increased severity of the season, would be much more striking, because the health of the destitute poor, who are the immediate objects for whose relief the Fever Hospital was intended, from their naked exposure are found severely affected by the cold of ordinary winters, and therefore the effects of last winter were merely some farther influence on that increase of indisposition amongst them; whilst in the wealthier classes diseases arose unprecedented in my recollection for the severity of their symptoms, or for their mortality.

The first table, however, which is perhaps the best substitute that can be now employed in Dublin for bills of mortality, shows, by comparing the months of Jan. and Feb. in different years, that the influenza was then at its achme, for not only the mortality but also the continuance of sickness was much greater then than in the corresponding

* See my Observations on the Varioloid disease, or on Small Pox, &c. &c.—Preface, p. 8, Dublin, 1821.

months of the other years included in the table; and it will be seen also, by examining the meteorological tables, that the severity of the season was extreme during the same months.

In tracing the rise and progress of this epidemic through its different stages, marked by cases noted down for that purpose, the general connexion between the state of the weather and of disease will farther appear.

From the various forms which this epidemic assumed alone or combined with the sporadic diseases of the country, I could not select any term from the nosologies of Sauvages, Linnæus, Vogel, Sagar, M'Bride or Cullen, which would be even generally applicable; I therefore have adopted the popular name given to it, deeming that as characteristic as any other, and as expressive of all that is known of its nature or properties, such as that is produced by "the power of celestial aspects operating upon terrestrial bodies and affairs, ascendant power of directing or modifying."*

It will be seen afterwards, that in the variety of its course it could not be circumscribed by the definition of any class, much less of any order, genus or species in the Nosology of Dr. Cullen;

* See Walker's Dictionary, word Influence, whence I have extracted the definition given above, being, as I conceived, that which expressed most nearly the popular notions respecting influenza.

but, however, that its affinity may be most generally traced to his first class, and through the succeeding orders and genera of that class, especially the 40th and 41st genera of the fifth order, or those of catarrh and dysentary, from the definitions of which, one might perhaps be selected applicable to many of the cases which I witnessed in the course of this endemic, viz. "pyrexia, aliquando contagiosa muci sanguinisve ex glandulis membranæ narium, faucium bronchiorum vel viarum primarum excretio morbida." In many instances too, it greatly resembled several of the species and varieties arranged by that able nosologist under these two genera, thus attempted to be epitomised. I may add, that these varieties seemed also to be produced in the same manner by the combination with it of epidemical and other diseases. Thus, at its rise, it will be found under its simplest form very nearly according with Doctor Cullen's definition of Catarrh, connected, at that time, with the variable temperature and moisture of the atmosphere, but occasionally modified by the tendency to remittent fever and dysentery, which is very generally remarkable at the conclusion of autumn, just before winter commences.

During November 1822, which I am inclined to consider as the first month of the influenza, for by consulting the tables, it appears sickness was much more protracted then than in the correspond-

ing months of other years, although the average mortality was not materially affected by it; and this was very nearly, I think, what might be stated of the diseases prevailing then amongst the wealthier classes also.

In the month of December, however, diseases became more severe, and the joint effects of pectoral and hepatic complaints more urgent; I am inclined to think also the increased mortality amongst the wealthy was, at that time, greater than what is expressed in the preceding table. Sudden deaths were reported to have been remarkably frequent, especially amongst invalids and persons in advanced age during that month; and I am induced to relate a remarkable instance of this kind which came under my notice in the succeeding month of January, both as a striking example of the manner in which such events happened at this time, and as affording, I think, further illustration of the principles on which the observations which I have made already, and those which I am about to make, have been founded.

A gentleman, 47 years of age, naturally of a very strong constitution, but greatly impaired by active service as an officer in the army, alternately in tropical and in cold climates, was, however, considerably restored to health by retirement and residence for some years in his native country; but remained subject, though at long

intervals, to severe attacks of rheumatism, gout, jaundice and œdema of the extremities, all obviously connected with derangement left in the hepatic system, that eluded several courses of mercurials, chlorine baths, saline mineral waters, and the usual treatment in such cases.

In the course of the last summer, though his flesh and strength seemed fully restored, he was still disposed to œdema of the lower extremities, greater in the evening after exertion, but not entirely removed on rising from bed in the morning; his colour, too, was more sallow than usual; he drank the waters of Leamington for a short time during the month of August, but did not think they served him; in the succeeding autumn, however, he returned to Dublin, looking and feeling better than for some time before, making no complaint, and resuming his usual cheerful manner and avocations, but confessed, though reluctantly, that his legs swelled a little in the evenings, and his natural colour perceptibly was not restored.

In the beginning of the month of January, as I learned since, he complained of slight rigors and headaches, as he supposed from having caught cold; but these were so transient that they neither interrupted his cheerfulness or his usual active exertions, nor did he deem it necessary to resort to medical advice on account of them. I also heard,

that during this catarrhal affection, the slight remnant of œdema which had been previous to it had entirely disappeared, and this he considered as an additional source of good spirits.

On the 9th of January he spent the greater part of the day walking through the city, and transacting his pecuniary affairs, which on that day had more than ordinary claims on his exertions; he returned home with a keen appetite, ate heartily, but not to excess, and drank proportionately; and afterwards, in the evening, walked hastily to different places to complete the business of the day which he had left unfinished. In the course of that evening snow began to fall heavily, and he was exposed to it in his walk after dinner, and drank tea very abundantly on his return. He went to bed at his usual hour, (his chamber without a fire lighted in it) with strength and animal spirits apparently undiminished; but immediately after lying down, he complained to his wife of chilliness, which was rapidly succeeded by a strong rigor and apoplexy.

When I visited him, in about half an hour afterwards, he lay speechless and motionless; respiration impeded and stertorous; pulse weak and intermitting; mouth hanging open; no sensibility nor power of protruding the tongue or of swallowing; skin clammy, rather colder than natural.

Various stimuli were applied, such as warmth, frictions, enemata, blisters, sinapism, venesection to five ounces, &c. &c. but unavailingly, for he expired, without convulsion, in about half an hour afterwards.

It may be remarked that the fluid which he had drank at his dinner did not seem to have passed from the stomach, for during the friction employed, the fluctuation at the epigastrium was to be distinctly heard and felt. Immediately after death discoloured fluid passed freely from his mouth, and the whole surface suddenly became livid and disposed to putrefaction. There was no remnant of anasarca when I examined his extremities at the time I was called on to visit him.

Though it may be regretted that an examination of the body after death did not take place, I am persuaded that the evidence it must have afforded, at least with regard to the disorganization of the viscera, would have been merely negative; for though probably the marks of chronic disease might be found in the enlargement or engorgement of the liver, it could not have been expected that any such disorganization would be detected as could explain the cause of the last attack, or of its sudden and fatal termination.

Although this must be viewed as an extreme case, yet I think it may assist to illustrate the nature of the endemic under consideration; for the suddenness of the attack, and its fatal termina-

tion, was evidently connected with the weather; and though the state of this patient's blood, from the previous history, must have predisposed him to be more urgently affected than others who were about that time attacked with influenza; yet it tends to shew that the condition of the fluids demanded close attention in judging of the derangement produced in the animal economy by the weather, or by whatever causes at that period were found so generally to influence the health of the people in this country.

This case might also be made instructive, perhaps, in the investigation of the chilling effects of low temperature, and of increased moisture of the atmosphere, in producing catarrhal, dysenterie, and visceral complaints; for it appeared that the secretions, whether exhalent or absorbent, were arrested, and that the consequent excess of congestion preventing the commencement of absorption, in the manner explained in Mr. Majendie's experiments, already alluded to, tended still further to establish the disease. In all such cases, no doubt, the paralysing effects of cold on the living fibre, especially in the incipient stages of them, may essentially contribute to produce the symptoms of disease; but it is, I believe, by the mutual influence of the morbid changes thus produced in the fluids as well as in the solids, that the train of morbid action, denominated symptoms, is to be observed; and that al-

though the state of the blood itself, or of the fluids secreted from it, is found to be modified by the function of the part engaged, so also is that of the function modified by the state of the blood, or other fluid carried to it.

These principles will be further illustrated in tracing the more advanced course of the Influenza; but it may be worth while to reflect for a moment on the case which has been just detailed, especially as to the preventative or curvative method which it suggested.

Three circumstances concurred, I supposed, to the fatal attack. These were over-exertion, too free indulgence of his thirst, and of his appetite for food, and retiring to rest afterwards in a cold chamber.

The suggestion for prevention, which the consideration of these circumstances afford are too obvious to need being dilated further upon, and with respect to curative means, I have only to add to what has been detailed in the case itself, that if called on in a similar case, after the apoplexy had taken place, I would think it worth while to employ, as a *dernier resort*, a tube pushed down through the œsophagus to the stomach, so as to introduce stimuli, especially antimonials, or such as are known to exert a sudden and sobefacient influence on that organ.

It may be further observed, with respect to the characteristics of the influenza, in the months of November and December, that though

they more generally resembled those of simple catarrh than in the subsequent months, yet these were even then in some cases combined with diseases of a more formidable type, such as were afterwards found almost entirely to change the primary form of the Influenza ; these were dysentery and its accompanying remittent fever, hepatic or pulmonary disease, with their attendant icteric or pleuritic fever; and even intermittents, which had been very little known in our Hospital for several years, began then to appear amongst the patients admitted.

In looking over the cases which I attended in the Cork-street Hospital in the month of December, I find that the combination of such diseases as are enumerated in the preceding paragraph, was frequent, and the tendency to a fatal termination by effusion, was also at this period of the influenza very remarkable. Of five cases which terminated fatally during that month in the wards under my care, two were moribund on admission, having symptoms of effusion on the brain and thoratic viscera ; two others died with symptoms of effusion into all the natural cavities, and the fifth with those of well marked hydrocephalus.

The month of January was marked with increasing severity in the symptoms of the epidemic. Dysentery and remittent fever were very general ; and a still greater number of agues than in the former month were found amongst those admitted

to the Hospital. The texture of the viscera, especially of the lungs and liver, seemed to become more generally engaged than in the preceding months, when the mucous membranes chiefly were affected, but now dyspnœa or orthopnœa often indicated the deep-rooted injury done to the lungs; and pain and soreness at the epigastric and right hypochonriac region, sometimes accompanied with jaundice, directed to the liver, as the chief seat of disease.

In many of the cases which terminated favourably, critical discharges or critical eruptions attended the commencement of recovery, which indeed was remarkable through the entire course of the influenza. In the bad and fatal cases, however, the discharges from the lungs were not a mere excretion from the mucous membrane, such as in other instances brought relief; neither were these from the intestines in these cases such as indicated the renewal of healthy secretion. In the former, purulent expectoration, attended by hectic fever, often designated vomica; and in the latter, sanguineous, ichorous or purulent discharges from the intestines indicated abscess or ulceration in some part of the abdominal viscera.

The cases of catarrh (or those in which the mucous linings only were engaged) were some times attended with inflammatory symptoms, so urgent as to demand the use of the lancet, but if

unaccompanied by any symptoms of more deep-seated disease, the blood was seldom found buffed; neither was the relief of pain and fever as great as generally succeeds bleeding, when employed for symptoms so apparently connected with inflammation.

A very large proportion of the cases which terminated fatally in this month, were, as in the last, attended with symptoms of effusion or vomica, but in some instances in persons of advanced age or weakly constitution, sudden death happened most unaccountably, otherwise than by supposing, that the weather, which at that time was found so generally to influence the state of the health of all, had extinguished vital power in those who were sparingly snpplied with it, or whose constitutional vigour in support of it had been otherwise exhausted.

In January the severity of the weather and of the prevailing diseases arrived together at their achme (see the prefixed tables). Peripneumony and dysentery were very general and very obstinate in resisting the effects of remedies. The accompanying fever, in this and various stages of the Influenza was generally, of the remittent kind, and the remissions most remarkable on alternate days.

Agues increased in frequency and urgency to a degree unparalleled in my recollection. Several of them were admitted into the Fever Hospital

Cork-street from the city itself, but more generally, however, from various parts of the surrounding country; most of those which I had an opportunity of examining came from the south-west direction, but they were not sufficiently numerous to justify a comparative statement.

These intermittents were mostly of the tertian type, and in treating of the method of cure in the Influenza in the month of April, I intend to give a brief detail of one or two cases of ague, which I noted with that view; and also to to give the results of trials which I made with the sulphate of quinquene, as a remedy in that disease: some of my colleagues had employed it previously in the Hospital, and reported favourably of its efficacy.

Gout and rheumatism were also frequent, urgent, and protracted in this month, as was also hooping cough in those susceptible of it, and asthma in those predisposed to that affection.

Small-pox was more or less epidemic through the whole period that the influenza prevailed; the frequency of its occurrence and the severity of its symptoms corresponding in like manner with the state of the weather. In those whom I saw affected with it in this month, who had not been protected by inoculation or vaccination, it was confluent and often fatal, and even the vaccinated themselves (as I am persuaded generally happens when small-pox is epidemic) were found less fre-

quently protected now and at the subsequent periods of the Influenza than at other times. In some instances which came under my knowledge during the winter months, small-pox, after vaccination, was severe through its course, and left pitting after it; but far more generally, in such cases, the benign influence of the antidote might be recognized in its mitigation of the symptoms from the commencement, or in its total arrest of the febrile symptoms on the seventh or ninth days.*

The texture of the lungs and of the liver became more generally affected than in the early stages of the epidemic, and the blood drawn also was found more generally buffed in the cases for which bleeding was employed.

Jaundice and erysipelas often attended the protracted remittent fevers, and the patients labouring under intermittents were very generally icteric.

Favourable crises, as in the former months, were at this time preceded or attended in many cases by discharges of blood, or increase of the natural secretions from the mucous membranes, by pustular eruptions or small external abscesses on various parts, especially about the nose, mouth and ears; the protracted and bad cases, however, often terminated in vomica or internal abscess,

* See my Observations on the Varioloid Disease, &c. &c. Edit. Dub. 1821.

and in vascular effusion into the cavities, the occasional harbingers of a fatal conclusion.

Of nine deaths which occurred in the wards under my care during that month, three were beyond seventy years of age, and on admission had symptoms of general dropsical effusion; two of middle age died suddenly with symptoms of internal effusion, though convalescent from fever for some days before; three of the other four laboured also under symptoms of internal effusion. Each of these four patients last mentioned were affected with catarrhal and dysenteric Influenza, accompanied with fever of a typhoid type, and each had been once or twice bled from the arm before admission.

The evident connexion which appears between the state of the weather and the progress of the influenza during the period under consideration, farther establishes the truth of those observations on epidemics, and their dependance on a particular constitution of the atmosphere,* inculcated by

* As an unusually low temperature and moisture of the atmosphere attended the course of this epidemic, it might perhaps be supposed that such a coincidence would alone be found always to produce a similar tendency in the endemic diseases of the country; this, however, I believe, would not accord well with previous experience, for some winters as cold and moist, have not been equally unhealthy; but though there may be other causes more latent, there can be no question on inspecting the tables prefixed to this article, that such a combination exerted considerable influence on the rise and progress of this epidemic.

Hippocrates, and adopted by Sydenham, Hoffman, as well as by the most attentive medical observers who succeeded them, and need not to be farther dilated on here ; but it may be worthy, in in this place, to remark and enquire how diseases propagated by specific contagion, which previously had been sporadic, became epidemic at the same periods with the influenza, corresponding also with it in the urgency of their symptoms and extent of their prevalence, in proportion to the number of persons who had not received immunity from such specific contagion by previous attacks, by inoculation or by vaccination.

The facts recorded which have led to this question will best illustrate it, as they shew manifestly, that whatever were the causes which concurred to the general indisposition, independent of specific contagion or infection, in the same degree, increased the previous susceptibility to that contagion or infection ; and thus, by finding that two objects of enquiry have one cause in common to both of them, so the pathological investigation is considerably simplified.

The striking elucidation which those facts throw on that common cause will plead my apology for addressing a few brief observations on the subject, which are the result of much attention and long experience.

In the first place having, in numerous instances, during twenty years attendance as Physi-

cian to the Fever Hospital and House of Recovery in Cork-street, witnessed the spontaneous rise of various forms of continued fever, that, sometimes spread by contagion afterwards, it has been for a long time my opinion that typhus fever, not unfrequently is produced primarily in many various ways independently of contagion, such as by confined bad air, unwholesome diet, cachexies, and by certain states of the atmosphere,* &c. &c. all of which, I am persuaded, act occasionally as exciting as well as pre-disposing causes not only of typhus fever but also of its contagion; and that although contagion or infection at certain periods may become a chief cause of the propagation of disease, and impress some peculiar modifications on it, very observable in its course, yet that in this country at least, where so many of the causes enumerated above exist, in full force, our indigenous typhus fever, appears much more generally independant of "any substance produced on the body of an animal diseased,"† than it does by the intervention of that substance.

This view of the subject, tending to shew that the causes of influenza and of the rise of contagious fevers, as well as of general predisposition to be affected by contagion, are often

* See page 18 to 49 of my Report from the Fever hospital Cork-street, for the year 1820 and 21.

† See Observations on Contagion, by Whitley Stokes, M. D.

the same, I beg leave, but with the diffidence which the subject demands, to offer, by the following explanation, an attempt at going a step farther in the investigation of the manner in which I suppose these causes, whether predisposing or exciting, act on the animal economy.

The *constitutio epidemica* defined by a modern writer,* " that peculiar state or condition of body " into which a great number of people are " brought by having been subjected to the opera- " tion of the same physical and moral causes," is what, as it appears to me, still requires explanation; and with a view to its investigation, if it is supposed that the agency of exciting causes in the generation of fever commences in the fluids, whether through the medium of external absorbtion or of the different sources of supply to the circulating mass, that hypothesis will be found to be supported by many striking analogies, and will assist to explain, in some measure, the phenomina in question, such as the general effects of changes in the state of the atmosphere on great numbers at the same time, and the sudden interruption or disturbance of the function connected with suppression of exhalation from the surface or of other healthy excretions; and also the general effects at other times of bad diet, famine, &c.

* See a New View of the Infection of Scarlet Fever, &c. &c. by William MacMichael, M. D. F. R. S. &c. &c. London, Sep. 1822.

either in producing diseases or predisposition to be affected by specific contagions.

By supposing the agency of the causes of disease to be first exerted on the blood, or fluids derived from it, their general effects all over the entire system may be better understood, whilst the successive order in the train of morbid actions depending on the solid parts, may be more clearly distinguished by the disturbance successively given to the regular and healthy functions of these parts.

Not only the symptoms, but the mode of termination, whether in health or dissolution, such as by some serous or sanguine eruption in the former, or by effusion in the latter, point to the fluid, as the chief seat of disease.

The dissections reported in the former part of this work, tend greatly to shew that the commencement of disease, especially those of catarrh, dysentery, purpura and dropsy, is in the fluids, particularly the first dissection in complicated dropsy and purpura, at page 27; that of adynamic dropsy at page 101; and likewise those two cases of adynamic purpura, page 129, 30, and 31,— and page 145 and 6.

The agency of specific contagions appears to me also more intelligible under this view of that difficult question, at least better illustrated than any other hypothesis can be by what is known to occur with respect to inoculation, in which process the

quality of the virus employed through the medium of the fluids, determines the future train of morbid actions, and therefore the kind of disease produced.

What the precise alteration in the fluids is in which the constitutio epidemica, consists in the first instance, I am not prepared to say, though I am persuaded that it would be well worth investigation, in the manner I have attempted with respect to the appearances of the buffy coat, for I suppose both conditions to arise from either suspended or altered function in the sanguifying processes carried on by the liver or lungs, or from morbid secretions in the course of the circulation of the blood, but particularly when in its transit through the pulmonary and hepatic systems.

From such considerations as these, which I hope to extend on some future occasion, I am inclined to suggest that the *constitutio epidemica* is a morbid change excited in the fluids, but particularly in the blood itself, productive of distressing and urgent febrile symptoms, and of a predisposition to greater susceptibility than usual to the agency of the specific contagions of various sporadic diseases.

The practical inferences deducible from the foregoing view of the nature of the epidemic constitution, applied in conducting the treatment of those affected by the influenza in its various stages, will be again considered in observations

on some cases which I shall next proceed to detail, as specimens of that epidemic; for as in the succeeding months its course and the accompanying diseases were nearly the same as in January, when it might be deemed at its achme, it would be but needless recapitulation to remark with the same particularity the similar circumstances in the other months also. Not being in attendance at the Fever Hospital during the months of February or March, I can refer only to the prefixed table for the state of disease there during these months, and add the following cases, which occurred to me in private practice, as specimens of the influenza, at the time when the texture of the liver or the lungs, but particularly that of the former, was very generally affected.

A gentleman, 28 years of age, athletic, and accustomed to active exertion, whose health had been for a while interrupted by siphilitic complaints, and by hæmoptoe, the latter arising, as he supposed, from the use of mercury, and from exposure to the gas in a chemical manufactory, of which he was proprietor, had been long in the possession of good health before the 18th of February, 1823, when on returning home from dinner, a short distance from Dublin, he felt himself suddenly chilled, succeeded by rigors, which lasted for some time after he went to bed, and from which fever set in; on the 20th, as I learned from Mr. Leech of Parliament-

street, who first visited him, symptoms of inflammation being then urgent, sixteen ounces of blood were taken from his arm, and other evacuants employed.

On the 21st of February, my first visit, I found his respiration quick and laborious, impeded by pain at the epigastrium, extending towards both hypochondres, and under the sternum; pulse 140, full and firm; skin hot and dry; tongue loaded and yellow; frequent cough and vomiting of bilious matter; expectoration scanty; no sleep through the previous night; the blood drawn the day before was highly buffed, very dense, and with a yellow surface; the firmness of the buffy coat, as was observable on the blood of many other patients at this time, was very remarkable; bowels costive, notwithstanding the use of purgatives; the urine pale and scanty; thirst urgent, but drink excited vomiting. *Prescribed* a repetition of the bleeding to sixteen ounces, a blister to the epigastrium, and ten grains of mercurial pill, with a draught, containing an ounce and a half of infusion of roses, half an ounce of sulphate of magnesia, and two drachms of tincture of senna; and a mixture for his cough, with tincture of digitalis and mucilage.

On the five succeeding days the symptoms already detailed rather increased than declined in urgency, notwithstanding that the bleeding from the arm was repeated largely five times during

that period (blood densely buffed) besides a large number of leeches being applied, succeeded by blisters, over the pained parts. Enemeta and saline draughts were added or substituted for the other remedies which I first prescribed, particularly on account of the vomiting, which continued almost all through his illness to be the most urgent symptom, the fluid ejected being bilious, and sometimes of a green colour.

On the 27th and 28th the fever appeared to yield, in some degree, to the effect of remedies, especially to that of digitalis, which, even in the small dose of ten drops three times a day, had so remarkable an effect in retarding the pulse, that it became advisable once or twice to diminish the dose; the symptoms of both pulmonary and hepatic derangement continued urgent; and for these an emetic was administered, four grains of blue pill and half a grain of ipecacuanha were given three times a day, together with the tincture of digitalis, the bowels being kept duly free by a solution of Epsom salts in infusion of roses, and by enemata.

On the 29th.—Report.—The gums were slightly affected, and there appeared to be a considerable remission in the symptoms; he got some sleep; the vomiting and cough were much less frequent; the bowels were duly freed, and the discharges of the natural colour; respiration less hurried, and pulse 70, with some intermissions,

apparently arising from the use of the digitalis, which he had been taking in tincture, but did not exceed the amount of ten drops at each dose three times a day, and which was subsequently continued along with antiphlogistic regimen, and the other remedies as prescribed in the former Report.

On the first of March a return of fever, difficulty of breathing, and pain in the chest, with distressing cough again demanded bleeding, which was employed, to twelve ounces, with considerable relief; and under the remedies already detailed, his complaints were much moderated, until the 8th instant, when they set in with increased violence. The cough and vomiting became very urgent, the fluid ejected being alternately green and yellow; the difficulty of breathing amounted almost to suffocation; his skin became hot and icterick, and his cheeks occupied with a circumscribed flush; his pulse frequent and intermitting; severe shooting pains were felt in rapid succession over the entire thorax and abdomen, totally interrupting rest. For these symptoms, which continued without abatement during the three succeeding days and nights, he was bled daily to twelve ounces for these three days, blood still densely buffed; an expectorating mixture, with ipecacuanha, were given, besides the tincture of digitalis, which was still continued; and blistering was also repeated to the parts of the abdomen and thorax where the pain was most fixed.

On the 12th, after a miserably anxious night, from pain, rigors, and cough; vomiting, attended with a sense of suffocation, supervened, and he ejected, both by the mouth and anus, more than three pints of purulent matter, of most offensive fœtor. On the succeeding day, on which I met Dr. Cheyne in consultation, though the patient was much relieved from pain and other threatening symptoms, seemingly by the discharge of the vomica, yet the purulent expectoration and fœtor arising from it, the cadaverous aspect of the patient, and the hectic fever which supervened, left but little room for the indulgence of hope.

It was now determined to trust to the digitalis, expectorants, and aperients in use, and to the cooling regimen.

Little alteration, to justify either more hope or despair, took place under the use of these remedies during the succeeding fortnight. The hectic fever, rigors, and night-sweats increasing, when the contents of the vomica accumulated, and declining with their evacuation.

It may be observed here, that from the time of the first eruption of the vomica, nausea ceased, and the patient felt keen appetite, which was cautiously indulged with cooling diet and cracked milk; but in one instance, when the limits prescribed in this way were transgressed, the patient suffered much aggravation of his general indisposition.

Towards the close of the month of March some

improvement in his symptoms could be daily observed, which seemed to be promoted by the use of preparations of horehound and Iceland moss.

On the 2d of April he was convalescent, and soon afterwards was removed to country air, where, in a short time, he was free from complaint, and has since enjoyed excellent health.

June 16th, 1823.—It is worthy of remark too, that during his convalescence this gentleman was affected with numerous phlegmons on various parts of the head, trunk and and extremities.

CASE.

A married lady, mother of a numerous family, although but twenty-nine years of age, who had been in general strong and healthy, was affected suddenly with rigors and pyrexia on the 17th of March, but not so urgently as to deem medical aid necessary, until the 22d of that month, when she called on Mr. Bell, of Francis-street, her apothecary and accoucheur, from whom I learned, in the evening of that day, that he found her very feverish and restless, with constant vomiting, the fluid ejected being of a green colour, and accompanied with such other alarming symptoms of debility, as induced him to decline to undertake the case without further aid.

On my first visit I found the symptoms extremely urgent indeed; the surface was every where jaundiced and covered over with cold and clammy sweat; the countenance pale; features were shrunk, and eyes hollow; voice very feeble and inarticulate; considerable coma, and attempts to drink, which she appeared to make with avidity, produced immediate straining to vomit, and what she threw up was quite green; pulse very feeble and indistinct, but as nearly as it could be counted, was 160 in a minute; she was then pregnant about twenty-three weeks, and her maid stated that she had been as healthy during this pregnancy as usual, until the present attack; the breathing now was quick and labouring; she lay constantly on her back, seemingly from debility. On examining the hypochondria and epigastrium, I found that even any slight pressure caused severe pain: an enlargement of the liver was distinctly felt, notwithstanding the state of pregnancy; the bowels were costive, but much turbid urine had been passed in the succeeding twelve hours.

Prescribed.—Twelve leeches to the right hypocondrium, and a cartharic enema every second hour, till the bowels were freed.—A table spoonful of camphorated infusion of mint, to be given internally to allay vomiting.

2d Visit March 23d.—Leeches caused a considerable flow of blood, and the enemeta operated

slightly; the green vomiting was somewhat checked, but in general there were little alteration since the day before. The fever, debility, and insensibility were unchanged.

Prescribed.—A blister to the right hypochondrium; the epigastrium and left hypochondrium to be rubbed with camphorated oil, and surrounded with flannel. Five grains of blue pill to be given every sixth hour.

The infusion of mint, and the enemeta to be repeated, and saline effervescing draughts, with the addition of five grains of calcined magnesia to every draught, to be given when vomiting was urgent.

March 24th, 3d Visit.—Report. The pills and enemeta caused a copious bilious discharge from the intestines. Blister has risen well; vomiting has ceased, and strength much improved; the skin hot and dry; thirst urgent; pulse 140, firm and full; breathing still difficult and severe; pain in the right side, shooting both downwards to the abdomen and upwards to the chest; no rest.

Prescribed.--The mercurial pills, saline draughts, enemeta and friction to be repeated. Venesection to twelve ounces.

March 25th, 4th Visit.—Report. Felt much relief by the bleeding, but symptoms still urgent; blood very densely buffed, and slightly cupped; the surface yellow; bowels free.

Prescribed.—A repetition of the bleeding to 16 ounces; and the other remedies as on the day before; a tartarized antimonial plaster to the right side.

March 26th, 5th Visit.—Felt great relief by the last bleeding, but complains of extreme weakness; pulse 160, and feeble; bowels costive; urine scanty; anasarca of the extremities on the right side; cough frequent and very teazing.

Prescribed.—A grain of powdered leaves of digitalis three times a day; a mucilaginous mixture with Thebaic tincture to allay the cough; and half a drachm of mercurial ointment, half a drachm of hogs lard, and ten grains of camphor previously well triturated together, to be rubbed on the right hypocondrium and right side twice a day.

Under the use of these remedies there was some daily amendment observable, and they were continued with little alteration to the 2d of April; but the strength having increased, and the symptoms demanding bleeding becoming again urgent, venesection to twelve ounces each time was repeated on the 29th of March, the 30th of March, and 1st of April.

On the 3d of April, she was convalescent; under the use of cream of tartar drink, and tincture of digitalis (prescribed for the remaining anasarca, and quick pulse) and that of taraxacum and Iceland moss, she was soon restored to good health, and is now going on in the last month of

her pregnancy, as I have learned very lately from Mr. Bell, as well as he had ever seen her on any former occasion.

On returning to the Hospital on the 6th of April, I found many cases of the epidemic, nearly resembling those of pulmonary and hepatic disease, which I have just given to mark its course in the preceding months of February and March; but though I noted down several, with the intention of introducing them in this place, yet fearing I may have already indulged too freely in detail, and finding this part of my proposed work has exceeded the limits which I at first intended, I shall only refer generally to these cases and dissections already detailed, and shall proceed to remark the most striking events which I found in my wards to characterize the epidemic in the months of April and May.*

The catarrhal and dysenteric characteristics, which had attended the rise and progress of the epidemic, were still conspicuous in these latter months, during which also the weather continued unusu-

* In the month of May, the weather still continuing most unusually severe, the epidemic diseases were still rife and urgent, and using the average mortality at the Fever Hospital in Cork-street, as I have hitherto done, as a scale to judge of the course of the epidemic influenza, it appears by it that there was no very considerable decline of it in the month of May, the deaths being as one to 11 $\frac{8}{19}$ recoveries in that month, 198 patients being dismissed cured, and 19 died.

ally severe, much more so than mid winter had been in other years. The dysentery however was, in many cases chronic, and the catarrh in many others had assumed the confirmed form of pthisis.

Many cases of small pox admitted then, still shewed that disease to be epidemic; all of it that came under my care in these two months were confluent; even a child named Julia Ryan, six years old, who had been vaccinated, and who had a large cicatrix from the operation on her arm, and who caught the disease, as her mother supposes, from a patient in the hospital, had it in a severe and confluent form until the 9th day, when as is usual with the vaccinated, the symptoms suddenly subsided. This child's face was pitted after recovery.

One case of small pox, never vaccinated, died in the wards under my care, in the month of April; and I left two of a very malignant kind, when in rotation I entered on the extern duty the 7th of June, of these one only recovered, and as I learned the other died with the most malignant symptoms on the 17th of that month.

All of the other sporadic diseases of the country admitted at this time were severe. Intermittents still continued to be brought in with remarkable frequency, and the catarrhal and dysenteric fever was generally of the remitting kind.*

* Nine deaths, six of females and three of males, took

The epidemic, however, assumed in these months new features that claimed minute attention, and call for some observation on them in this place. These were the well known characteristics of the typhus of this country, denoting debility in every function, natural, animal, and vital; such as checked excretion and secretion, passive hæmorrhage, adynamic effusion of dropsy or purpura, diminished, or morbidly increased sensibility, delirium, coma; and the circulation, respiration, and voice itself feeble, imperfect or irregular.

These characteristics of debility are always most remarkable in the cases of typhus fever produced by contagion; and these two of purpura contagiosa detailed in the preceding pages may be referred to as exquisite specimens of that kind; but it should be remarked, that the presence of petechiæ is not always a necessary, though at sometimes in Dublin a frequent accompaniment of typhus fever.

In the month of April whole and numerous families began to be brought in together, labouring

place in the wards under my care at the Fever Hospital and House of Recovery, during the months of April and May; three of these, viz. two females under 20 years of age, and one male in advanced age, died of pthisis; one female 26 years of age, and one male in advanced years, died of typhus gravior; one male died shortly after admission of effusion on the lungs; one female of dropsy, and another of purpura. The cases of dropsy and purpura, with the post mortem examination, may be seen in the preceding pages.—See the mortality in the Hospital during May in preceding note.—Page 219.

under the worst catarrhal or dissenteric symptoms of the epidemic, with those of typhus fever. The pulmonary, hepatic, and intestinal affections being combined with coma or delirium, tremulous voice and tongue, and tremor of the extremities, spasmodic twitchings, &c. &c.

I have noted the cases of three families similarly affected, brought in from the neighbourhood of Donnybrook in the month of April, namely, those of Kavenagh, Leckee, and Evory, consisting of twenty persons, male and female, in whom such combination of symptoms was very remarkable, and proved how active the contagion of typhus fever was then beginning to be ; every individual of them laboured more or less under cough, hurried respiration, quick pulse, and hot skin ; and all too in various degrees under coma, delirium, tremulous voice, tremor of the extremities, and spasmodic twitching of the muscles. The successive illness of all of them could be traced to one source, in as much as it was stated that the mother of the Kavenaghs first sickened, and died in one of the hospitals in Dublin, and that the body being carried home to be waked, the family of the deceased, and those of their neighbours, already mentioned, sat up at the wake, and that they subsequently sickened and became affected with symptoms very similar to those with which the elder M. Kavenagh had died.*

* See first joint Report by the Physicians of the Fever Hospital, Cork-street, A. D. 1806, where a similar statement of the progress of fever through families by contagion, may be seen.

The course of disease in these families, and in others affected with influenza and typhus at that time, reminded me very much of a similar combination which I had witnessed in the dispensaries in Dublin at various times about the commencement of the present century, and which was denominated by the common people "the *stitches*," a combination which, under all kinds of treatment, as remarked by the late Dr. Harvey, (whose acuteness in discernment and observation will not soon be forgotten) was found to be most perilous and fatal, and who I have heard speak with respect to bleeding in such a form of epidemic as Hoffman wrote of, that in 1742, in the following quotation, with which I shall take leave to conclude this section :—" Genita hæc in carceribus " Febris, et per Comitia provincialia dissémenata " longè latèque, plurimos letho dedit, optimaque " sæpe elusit Consilia.—Certè qui fuere sanquinis " prodigi nimis Ægrum utiquè, non morbum, " jugulabant, perrarô enim secundam sanquinis " missionem, toleravit, si modo ullam." *

* Vide Observationes de Aere et morbis epidemicis, auct J. Hoffman, pag. 82.

METHOD OF TREATMENT,

AND

CONCLUSION.

SECTION II.

IT has been most fortunate for the human race, and creditable alike to the hearts and understandings of the members of the medical profession, both ancient and modern, that however different or opposed the hypotheses may have been which successively prevailed in the medical schools, these have been constantly tried by the sure test of their utility in the prevention or cure of diseases, and were brought and adapted to the rule of practice, rather than employed to influence, at least very essentially or for any length of time, suggestions afforded by vigilant attention to the juvantia or lædentia, in the progress or cure of diseases; and further, that however ingeniously and zealously medical writers themselves may have maintained their favourite doctrines, yet, that in their practice, they have retained such parts only as were consistent with the laws of nature.

Smilar inferences have been deduced very generally from observations on the theory and practice of the medical profession, both at remote and modern periods ;* and the late lamented Dr. Bateman, writing on a like occasion, adds, †—" It was long " ago justly observed ; however, Nihil istas cogita- " tiones ad medicinam pertinere, eo quoque disci, " quod qui diversa de his senserint, ad eandem " tamen sanitatem homines perduxerint."

With similar sentiments I have conducted the treatment of the various stages and forms of the influenza, upon which I am now about to make some brief observations ; and whatever the reader may meet of theory may be retained or freely rejected, as it accords or disagrees with the practical results ; for on these alone I have tried to found it ; and its imperfections are fairly attributable, either to the subject being too extensive, or my inability to present that exact resemblance from nature, which I sincerely and sedulously endeavoured to effect.

Taking a general review of the course of the late epidemic during the last seven months, it appears to me that the whole period might be conveniently divided into three parts, a division sufficiently designated by a particular train and degree of symptoms, and such as demanded considerable variety of treatment.

* See my treatise on Fever, London, 1814.

† See Succinct Account of the Contagious Fever, &c. by T. Bateman, M. D. &c. &c. London, 1818.

The first period might include the months of November and December of 1822, during which, catarrh and dysentery, accompanied very generally with a remittent form of fever, began to prevail : during this stage the blood drawn by venesection was seldom buffed, and it coagulated slowly.— The mucous membranes were then chiefly affected.

In the second period, or in January and February of 1823, which might be deemed the acmè of the influenza, its own proper catarrhal and dysenteric symptoms being then at their highest, and the sporadic diseases becoming also epidemic and severe ; the texture of the viscera, particularly the intestines, and in less degree that of the heart, lungs, and viscera, began to be more engaged ; the blood taken by venesection was found more frequently buffed ; and intermittent fever, of the tertian type, was then likewise most general and difficult to cure.

The third period, including March, April, and May, though marked by some decline in the frequency of the catarrh and dysentery, yet these complaints, in a chronic form, were in many instances urgent, so long as the cold weather continued, which did not cease this year even with the month of May.

Symptomatic fever was still generally remittent, and ague frequent and severe. Small pox and other sporadic diseases continued epidemic, and were accompanied with fever of a bad type.

The texture of the viscera, particularly those of the liver, stomach, spleen, heart and lungs, were now found in most cases to be affected, and the blood taken by venesection was very generally deeply and densely buffed.

This third period, however, claims still farther attention, on account of the rise of typhous fever, and of its contagion, as well as of its general and pernicious influence on the symptoms of the epidemic.

In order that practical observations may be more conveniently made on these three periods, the first of them may be denominated the catarrhal; the second dysenteric; and the third, the visceral and typhous.

The treatment of the catarrhal stage of the influenza, in a large proportion of cases, was most beneficial when suggested by the general exciting cause; and hence avoiding exposure to cold and moisture, especially when not tempered by the noontide sun, or when exhaustion succeeded fatigue. The additions of clothing best calculated to support animal warmth were therefore the leading indication in prevention, and often in cure.

Great attention to diet was found to be an excellent prophylactic; and by rigid abstemiousness, especially in the use of fluids, I found not only prevention, but even a cure in many instances.

In general, internal medicines were little need-

ed at this period; and even where evacuants were seemingly most required, their effects suggested caution in their use, rather than persevering in their repetition. When pyrexia, so urgent as to call for the interference of art, occurred, I often found it quickly allayed by mild sudorifics, chiefly composed of the acetated water of ammonia, alternating with its use warm baths, or opiates to increase the sudorific effect, or some gentle aperient, when costiveness was present.

In more obstinate cases I have substituted the acetated ammonia with antimonials, which I have been long in the habit of esteeming as favorite remedies.

During the catarrhal stage as stated, I was not encouraged by the trials I had made with evacuants of any kind to press them to great extent; and even when inflammatory symptoms imperatively demanded bleeding, I did not witness the same relief of these symptoms as at other times: I however think that such inflammatory symptoms, and more especially in cases in which dysentery threatened, bleeding should not be withheld, but it should be cautiously repeated according to the suggestions afforded by its effects in previous trials.

The treatment of the dysenteric cases is subject to some only, of the preceding observations; for though the same attention to abstemiousness of diet and to clothing was necessary in both description of cases, yet the medicines employed as

sudorifics or evacuants should be somewhat different; thus preparations of ipecacuanha and opium alone, or combined with mercurials or antimonials, were best suited to the cure of dysentery; and the purgative effects of combined mixtures of castor oil and oil of turpentine alternated with mercurial pills, might be used with more freedom and advantage, than in cases of simple catarrh. Bleeding was also more generally indicated, as well as more generally beneficial in dysenteric than in catarrhal cases.

In the second stage, or that which I have denominated dysenteric, the preceding remarks apply to the cases in proportion as they partook of catarrh or dysentery; but it has been already noticed that other forms of diseases, particularly small pox, and sporadic diseases in general, as well as agues, partook of the general epidemic tendency.

It would be incompatible with the design or limits of this treatise to enter on the treatment of small pox, or the other sporadic diseases; and I shall therefore proceed to the consideration of the treatment of the influenza in its third and last stage, as I shall have occasion to offer some practical remarks on the forms both of continued and intermittent fever, which began in the second period to influence the course of the epidemic.

The remarks which I intended to make on the curative treatment which I adopted in the third

and last stage of the influenza, or during its course in March, April or May, and particularly with respect to the modifications of disease produced by the texture of the viscera, especially the lungs and liver, these parts being then more generally affected, may be illustrated by reference to cases already detailed, or briefly stated; thus the cases selected from those admitted into the Hospital during these months, and detailed under the head of purpura and dropsy, may illustrate the tendency to visceral affections, and subsequently to dropsical and purpural effusion, as well as the treatment in such cases; and in the same way the tendency to typhus fever, and the indications of cure in the modifications produced by that disease at the period under consideration, may be illustrated by reference to those cases briefly stated at the conclusion of the last section.

In addition to the observations already made on these cases, I think it chiefly important to remark, that when the texture of the viscera, especially those employed in sanguification, was engaged, and when buffing of the blood, particularly the yellow and densed kind accompanied that blood-letting, though a necessary adjuvant, was not alone effectual for the relief of the symptoms, and this appeared to me well exemplified in the cases of the lady and gentleman which occurred in March and April, as given in the preceding pages, and in which the co-operation of blisters

and internal remedies, especially of mercury and digitalis, was most beneficial and essentially necessary. The *ratio medendi* in such cases will also, I trust, be found consistent with the principles developed through this work, both with regard to the altered appearance of the blood depending on the condition of the functions of sanguification, and the effect of remedies for that condition, and consequently for the morbid state of the blood itself.

Having lately in a Report * of the Fever Hospital and House of Recovery in Cork-street, for the years 1820 and 1821, recapitulated the leading arguments which twenty years experience in that establishment have supplied me against the employment of venesection as a general remedy for typhus fever, I shall content myself, in this place, with adding farther evidence on this subject, afforded by the combinations of typhus, with the late prevailing epidemic.

Premising that it was my practice to bleed through every stage of the influenza, in proportion to the degree in which the inflammatory symptoms of any vital organ prevailed, I can possitively affirm, in the first place, that venesection was not in general so effectual in relieving such inflammatory complaints as I have seen it at other periods; and secondly, that in whatever degree

* See pages 92, 3, 4, 5, and 6.

the genuine symptoms of typhus were combined, in the same degree, these symptoms were injured by the operation.

In the families of Cavanagh, Evory, and Lecky, admitted into Cork-street Hospital, consisting of twenty persons, as stated in the last section, all recovered. The crises of convalescence were very decisive in all except that of John Cavanagh, a boy fifteen years of age, and who was the only one that had been bled from the arm, the characteristics of typhus being less remarkable on admission in him than in any of the others; on that account, and cough being frequent, as well as the respiration being hurried, nine ounces of blood were taken from his arm; on the next day, a tremulous voice, tremor of the extremities, and coma, marked the rapid progress of debility, and his convalescence did not commence for eight days after that of his father, who sickened at the same time, was sixty-four years of age, and lay in the next bed to him in the hospital, with symptoms which, on his admission, were much more urgent than those of his son; and it may be added, the whole of that family were dismissed cured several days before this boy was fit to be removed; and when he was allowed to go home, on the third of May, it was with the assistance of his father that he was able to walk; notwithstanding that for several days during his convalescence he had been

allowed four ounces of wine daily, which was not given to the father, as he did not require it.

On the treatment of intermittents, I have only to add my testimony to that which I understand the trials of it in our hospital, and several others in Dublin have claimed for it, in favour of the efficacy of sulphate of quinine, as a remedy for these forms of fever.

The first trial I made of it was in the case of John Carroll, a labourer, 19 years of age, who was admitted into the hospital on the 2d of May; his first paroxysm had come on the 16th of April, and the ague continued under the tertian form until the day of his admission. A paroxysm came on shortly after he was put to bed, and was a protracted one; he soon after got a grain of sulphate of quinine, which was repeated every three hours to four doses, and in the same manner for the two successive days; his next paroxysm was considerably slighter, and the third and last almost imperceptible, so that with twelve grains of this medicine, aided by mild aperients, this man was cured of tertian ague.

The second case was that of James Smyth, 45 years of age, admitted into the hospital on the 9th of May, who, twelve years before, had laboured under a severe double tertian at Madras in the East Indies; on admission, he was affected with pyrexia and the ordinary symptoms of influenza, and was affected with the first paroxysm on

the 14th of that month; after the succeeding paroxysm, the sulphate of quinine was administered, as in Carroll's case, and its effects were obvious, both in shortening and mitigating the succeeding paroxysms; he required, however, a longer continuance of the remedy; but 16 grains were found sufficient for the total removal of this ague.

In order to conclude the subject, some brief recapitulation may be allowed, and especially with respect to the principles and practice which I have adopted as regards blood-letting in the treatment of the influenza.

In the first, or catarrhal stage, I have stated that I employed bleeding proportioned to the degree in which the inflammatory symptoms presented themselves to me, but that the relief was not proportioned to my expectations; that in the second stage, those symptoms, deemed still more decidedly inflammatory, demanded the use of the lancet, decided relief did not generally follow without the aid of other remedies; and that in the third or last stage venesection was found to be pernicious in proportion as typhoid symptoms were paramount.

Perhaps other epidemics may afford different indications; and other observers, even in this, may not have deduced the same inferences that I have done; but in concluding, I beg leave to repeat, that the very extensive opportunities for observa-

tion, which I have had, have been employed to the best of my judgement, and the results of my enquiries have been given in this work with a regard anxiously attentive to perfect truth and sincerity.

APPENDIX.

TABLE OF DIET.

PATIENTS' FULL MEAT DIET.

1 pound bread
½ pound boiled beef, without bone
1 pint broth
1 ½ quart pure new milk
1 pint flummery

To be disposed of thus.

Breakfast.
½ pound bread
⅝ pint pure new milk

Dinner.
½ pound bread
½ pound boiled beef, without bone
1 pint broth

Supper.
1 pint flummery
⅝ pint pure new milk

PATIENTS' FULL FAST DIET.

½ pound bread
2 pounds potatoes
1 ½ quart pure new milk
½ pint butter-milk
1 pint flummery

To be disposed of thus.

Breakfast.
½ pound bread
⅝ pint pure new milk

Dinner.
2 pounds potatoes
1 ⅝ pint pure new milk

Supper.
⅝ pint pure new milk
1 pint flummery

PATIENTS ON MIDDLE BREAD DIET.

pound bread
1 pint broth
1¼ quart pure new milk
½ pint butter-milk
1 pint flummery

To be disposed of thus.

Breakfast.
½ pound bread
⅚ pint pure new milk
Dinner.
½ pound bread
1 pint broth
Supper.
⅚ pint pure new milk
1 pint flummery
⅚ pint pure new milk
½ pint butter-milk, for drink, as required

PATIENTS' MIDDLE DIET.

¼ pound bread
1 pint broth
1¼ quart pure new milk
1 pint flummery
1 pint butter-milk

To be disposed of thus.

Dinner.
¼ pound bread
1 pint broth
Supper.
⅚ pint pure new milk
1 pint flummery
1⅔ pint pure new milk
1 pint butter-milk, for drink, as required

PATIENTS' LOW FLUMMERY DIET.

1½ quart pure new milk
¾ quart butter-milk
1 pint flummery

To be disposed of thus.

Supper.
⅚ pint pure new milk
1 pint flummery
Drink as required.
1½ quart pure new milk
¾ quart butter-milk

PATIENTS' LOW BREAD DIET.

¼ pound bread
1½ quart pure new milk
¾ quart butter-milk

To be disposed of thus.

¼ pound bread, to eat when inclined
Drink as required.
1½ quart pure new milk
¾ quart butter-milk

PATIENTS' LOW DIET.

1½ quart pure new milk
¾ quart butter-milk

Drink as required.

Explanation of the Letters respecting Diet in this Work.

F. Full Diet.——M.....Middle Diet.——L.....Low Diet.

FORMULÆ OF THE MEDICINES

GENERALLY PRESCRIBED IN THE

FEVER HOSPITAL

CORK STREET.

No. I.

℞. Pulveris Rhei,
Pulveris Jalapii, utriusque grana sex,
——— Zingiberis grana tria,
Submuriatis Hydrargyri Sublimati grana tria.
Syr. q. s., ut fiat Bolus.

Bolus Purgans.

No. II.

℞. Infusi Sennæ uncias octo,
Sulphatis Magnesiæ drachmas sex; solve.
Sumat uncias duas secundis horis ad alvi solutionem.

Infusum Purgans.

No. III.

℞. Electuarii Scammonii drachmas duas,
Tinct. Sennæ unciam,
Antimonii Tartarizati grana tria,
Infusi Sennæ uncias septem,
Syr. Semunciam ; misce.
Sumantur unciæ duæ secundis vel tertiis horis ad alvi solutionem.

Mistura Laxans.

No. IV.

℞. Infusi sennæ uncias Octo.
Sulphatis Magnesiæ drachmas sex ;
Sumat uncias duas secundis horis ad alvi solutionem.

No. V.

℞. Tinct, Sennæ, Aquæ Menthæ, utriusque semunciam,
Olei Ricini drachmas sex ; misce. Ft. Haustus.

Haustus oleosus, cum Tinctura Sennæ.

No. VI.

Haustus Oleosus.

℞. Olei Ricini,
Aquæ Menthæ, āā unciam.

No. VII.

Haustus Olei Ricini c̄ Tint^a. Sennæ.

℞. Olei Ricini. Drachmas sex,
Tincturæ Sennæ drachmas tres ; fiat Haustus.

No. VIII.

Haustus Purgans Salinus.

℞. Sulphatis Magnesiæ,
Sulphatis sodæ utriusque drach. tres,
Aquæ uncias sex,
Solve.

No. IX.

Haustus Anodynus.

℞. Aquæ Menthæ unciam,
Tincturæ opii guttas triginti, misce, fiat Haustus hora Somni sumendus.

X.

Enema purgans.

℞. Sulphatis sodæ uncias duas,
Decocti Chamæmeli libram solve, adde,
Olei Olivarum unciam pro Enemate.

No. XI.

Enema fœtidum.

℞. Decocti florum Chamæmeli, libram,
Adde Olei Olivarum unciam,
Tincturæ fœtidæ semunciam; misce,
Fiat Enema.

XII.

Enema Terebinthinæ.

℞. Enematis purgantis libram,
Olei Essentialis Terebinthinæ unciam; misce,
Ft. Enema.

No. XIII.

Mistura Salina.

℞. Carbonatis sodæ semunciam,
Solve in Aquæ puræ Unciis octo,
Sumantur Cochlearia duo ampla cum cochleari uno amplo,
succi Limonum, tertiâ quâque horâ.

No. XIV.

Mistura Diaphoretica.

℞. Aquæ Ammoniæ Acetatis,
——· puræ uncias tres, Syrupi simplicis drachmas duas,
Sumat Cochlearia duo ampla tertiâ quâque horâ.

No. XV.

Mistura Camphorata Comp.

℞. Misturæ Camphoratæ Uncias sex,
Liquoris Ætheris Oleosi semunciam,
Syrupi Simp. drachmas tres,
Sumat Chochlearia duo ampla, tertiâ quâque horâ.

No. XVI.

Mistura Aromatica.

℞. Aquæ puræ uncias Septem,
Spir. Ammoniæ Aromaticæ, drachmas tres,
Syrupi Simp. drachmas duas; misce,
Sumatur uncia, tertia quâque horâ.

No. XVII.

Mistura Cinchonæ.

℞. Decocti Cinchonæ uncias Octo,
Tincturæ Cinchonæ unciam; misce,
Sumat uncias duas ter quaterve in die.

No. XVIII.

Mistura Expectorans.

℞. Syrupi Scillæ,
——— Simplicis. utriusque semunciam,
Pulveris Ipecac. grana quatuor,
Tincturæ opii, guttas viginti,
Infusi Seminum Lini uncias Septem; misce,
Sumat Cochleare Amplum subinde, urgente tussi.

No. XIX.

Mistura Carbonat. Ammoniæ.

R. Carbonatis Ammoniæ Drachmam,
Aquæ uncias Sex,
Syrupi, unciam,
Capt. Aliquantulum subinde urgente tussi.

No. XX.

Pilula c̄ Calomel. & pulv Autimoniale,

R. Submuriatis Hydrargyri Sub. grana duo, Pulveris Antimonialis grana tria,
Fiat pilula, quarta quâque horâ sumenda.

No. XXI.

Pilula Sudorifica.

R. Pulveris Antimonialis grana tria,
Pulvs. Ipecacuanhæ grana duo,
Fiat Pilula quartâ vel sextâ, quâque horâ sumenda.

No. XXII.

Pilula Laxans.

℞. Extract Colocynthidis Comp. grana duo
Gambogiæ granum,
Gelatinis saponis q. s.
Olei Menthæ guttam,
Fiat Pilula.

No. XXIII.

Pilula Expectorans.

℞. Pulv. Ipecacuanhæ,
Pulv. Scillæ, ā ā grana duo,
Submuriatis Hydrargyri Sub. Semigr.
Fiat pilula tertia quâque horâ sumenda.

No. XXIV.

Pilula Ipecac. c Calomel.

℞. Pulvs. Ipecac.
Submuriatis Hydrargy. Sub. utriusque grana duo,
Sumatur sub formâ pilulæ.

No. XXV.

℞. Pulv. Ipecacuanhæ grana duo,
Tertiâ quâque horâ sumenda.

Pulvis Pectoralis.

No. XXVI.

℞. Pulveris Antimonialis grana tria,
Quartâ quâque horâ sumenda.

Pulvis Sudorificus.

END OF PART THE FIRST.